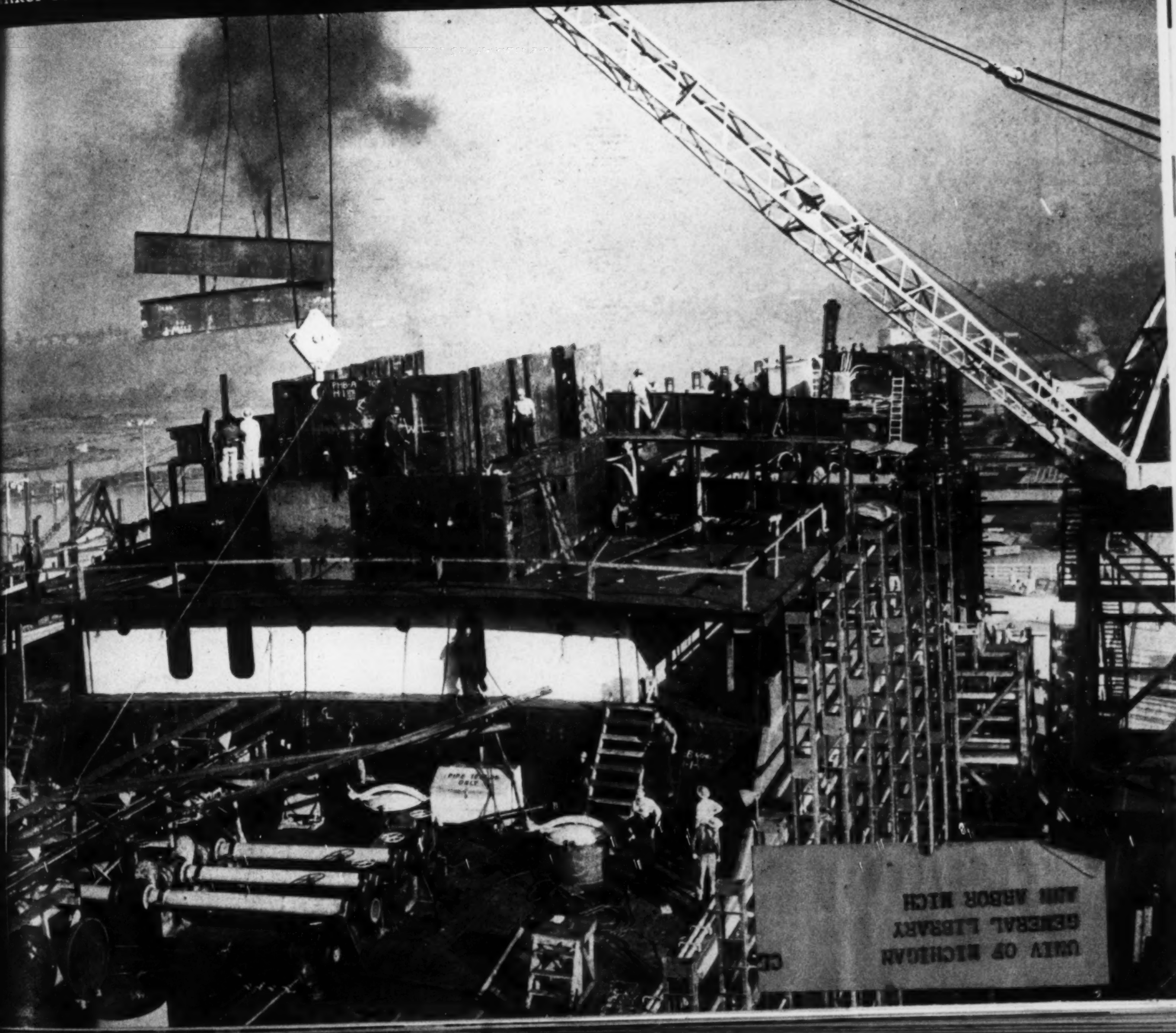
ENGINEERING NEWS-RECORD

nker construction on which a new speed record of 115 days was reached at a West Coast shipyard.



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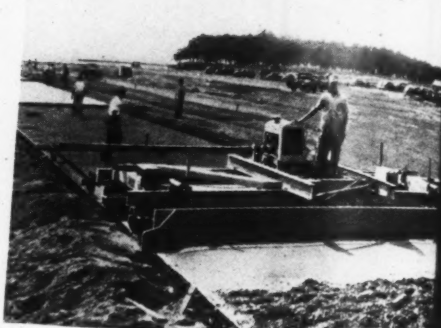

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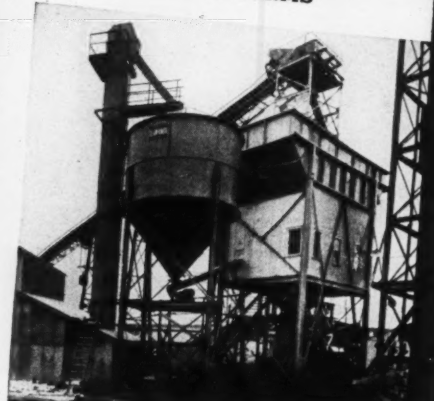

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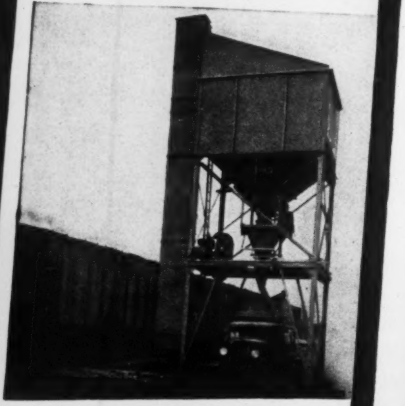

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The Week In Engineering and Construction

ENGINEERING NEWS-RECORD • NOVEMBER 26, 1942 • VOLUME 129 • NUMBER 22

OPA considers easing rigid labor cost computing ruling

Arbitrary July 1 date as base for fixing labor costs may be amended, since difficulties have been discovered in adjusting permitted costs to WLB-approved increases

The Office of Price Administration is considering amendment of the construction price ceiling, regulation 251, to loosen somewhat the rigid rule that labor costs in a construction contract must be based on rates in effect last July 1.

The price regulation (*ENR*, Nov. 5, p. 613) set the maximum price on a cost-plus construction contract at cost plus the highest margin charged for similar work in the three-year period before last March. The ceiling on fixed price contracts is the estimated cost plus estimated contingencies plus the pre-March margin. In both cases, the cost figures must be based on July 1 labor rates.

The July 1 date was adopted primarily because of the existing agreement freezing construction wages on federal work as of that date. However, the agreement permits increases if they are approved by a wage adjustment board set up in the department of labor. Wages on non-federal work are frozen at Sept. 15 rates by the President's Wage and Salary Stabilization Order. But here again, adjustments are possible with approval of the War Labor Board (*ENR*, Nov. 19, p. 687).

Difficult to modify

In its present form, however, regulation 251 makes it difficult or impossible to modify prices to reflect permitted increases in wages. Appeals for adjustment may be made to OPA by firms holding government contracts in cases where the adjustment is necessary to avoid delay in essential war work. Other firms are not permitted to ask for individual adjustments, but may only seek amendment of the order itself—and OPA is pretty chary with amendments.

Procedure by which adjustments or amendments necessitated by wage increases approved by WLB or the wage adjustment board may be applied for was laid out by OPA last week. Main point is that the petition must be filed with OPA before the wage increase goes into effect and within 15 days after the wage increase application is filed with WLB or the wage adjustment board. Firms petitioning will have to provide balance sheet and profit-and-loss statements and an analysis of the effect on their costs of the pending increase.

No final decision has been reached on how this complex situation will be clarified, but a likely move is an amendment granting automatic recognition to increases approved by WLB or the wage adjustment board.

No changes expected

Despite a considerable number of protests from the industry against the terms of the order, OPA does not expect to make any other major changes in it. Some minor amendments and interpretations—such as easing the time limit on filing of reports—are in preparation. Bulk of the protests are based on the view that regulation 251 will require contractors holding fixed-price contractors to refund to the owner part of any savings in cost. This feature was included in an early draft of the regulation, but OPA officials insist there is now nothing in the order which would have that effect.

The regulation requires fixed-price contractors to file with OPA a statement of the estimated costs and margin on which they base their price. At the end of the job, they must file actual costs, but the regulation has no provision for OPA to do anything about it if there is a wide discrepancy between the estimated and actual costs. There is hardly more than a psychological control to prevent contractors evading the intent of the regulation by inflating their cost estimates.

The chief usefulness to OPA of the reports is likely to be that they will furnish statistical data on margins in the industry which will prove useful if at some later time an effort is made to write a more rigid price regulation.

Press Assn. photo

Jungle trails become army road

The difficult task of converting almost imperceptible jungle trails into passable roads for army motorized equipment is one of many problems facing the Corps of Engineers and its troops.

Shown above is a scene in the almost trackless jungles of New Guinea, where the troops are hacking their way through heavy growth to gain sufficient clearance for army transport equipment.

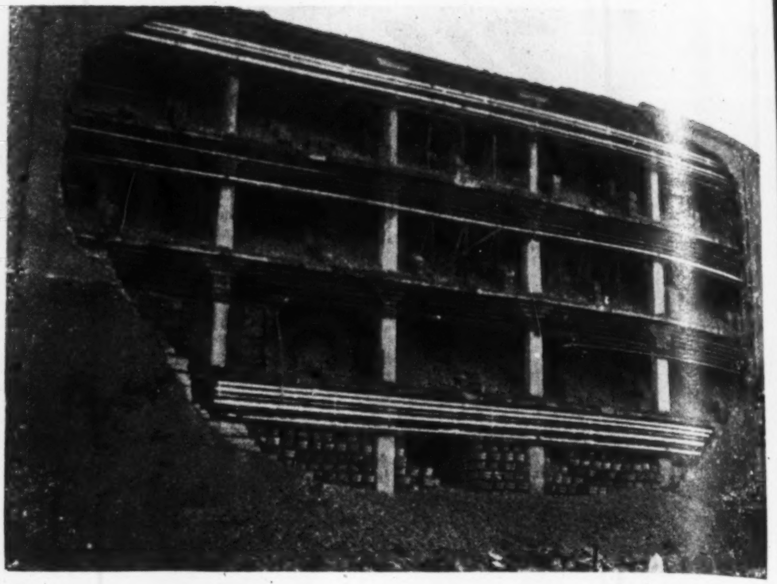
WASHINGTON HIGHLIGHTS

The Office of Price Administration is anxious to dispell the widespread impression that the construction price ceiling—Regulation 251—requires detailed submission to OPA of detailed breakdowns of cost estimates. OPA wants only broad totals. A fixed-price contractor, for instance, would be expected to submit a single figure each for: estimated cost of materials, estimated cost of labor, estimated other direct costs, estimated contingency reserve, estimated margin and the method of its computation, and the contract price.

The Increasing need for quick delivery of construction equipment for the armed forces—both in the combat zones and in other military areas—has spurred a request for immediate registration of all used construction machinery with regional offices of the War Production Board. The WPB's Used Construction Machinery Section urged that those who have not as yet registered their equipment get in touch immediately with the construction machinery specialist at the nearest regional or district office of WPB.

Restrictions on the use of copper and copper base alloy building materials were clarified last week by Amendment No. 1 to Conservation Order M-9-c-4. The Amendment is simply a revision of the definition of the phrase "To install in or connect to a structure or system" to restore the original intention of the order and to correct an inadvertent omission of several words made in the amended order of October 27, 1942.

Time Within which certain off-the-highway motor vehicles may be manufactured was extended last week by Amendment No. 3 to General Limitation Order L-1-e. The original order authorized manufacture of 500 of these vehicles between July 1 and December 31, 1942. The amendment extended the period of time for their manufacture from July 1 to March 31, 1943. It does not increase the number authorized.



Warehouse wall goes out under apple overload

Fifteen thousand bushels of apples cascaded onto adjacent railroad tracks and streets at Chambersburg, Pa., recently, when a section of the wall of a warehouse owned by the Chambersburg Ice & Cold Storage Company collapsed.

Damage was estimated at $10,000.

The building's wall was faced with brick, with 8-in. concrete block between the brick and cork insulation. The wall was tied to the steel-reinforced concrete floors with ¾ in. anchor irons, spaced at 10-ft. intervals. The anchor irons were straightened out as the wall pulled from its moorings, leaving an opening 110 ft. by 50 ft. in the 210-ft. windowless structure.

The floors, supported by reinforced pilasters were undamaged.

During the early fall, the upper three floors were given over to storage of apples in bulk for two local canning companies. Previously, most storage had been crated.

Guy Hafer, superintendent of the Quigley-Hafer Construction Company, which is doing repair work on the building, said that the collapse occurred when the center portion of the wall was pushed out under pressure of the apples.

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Army sanitary expert detailed to Venezuela

Lt. Col. Ernest W. Steel, U. S. Corps of Engineers, who is on leave from his post as professor of municipal and sanitary engineering at the Texas A & M College, has been detailed as adviser to the division of sanitary engineering, Ministry of Health, Venezuela. He left this country recently to take up his new post at Caracas.

Prior to this assignment, Colonel Steel was the U. S. Army liasion officer to the Coordinator of Inter-American Affairs. In this capacity he made a 15,000-mile inspection trip of South American countries last summer in company with Prof. Gordon M. Fair, engineer-consultant in the Coordinator's office. His rank was advanced from major to lieutenant colonel recently.

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Coal mining pollution of Schuylkill studied

Ways and means of regulating the discharge from mine solids into streams tributary to the Schuylkill River is the subject of a report submitted last week by the anthracite coal industry to the State Sanitary Water Board of Pennsylvania.

Impounding basins have been installed to the extent that the presumed waste from 23 percent of the producers now receives this treatment. Settling tanks as well as piping arrangements to pump back solids to abandoned mine workings also are in use or planned by producers of an additional 28 percent of the total tonnage.

The committee declared that "complete removal of all solids, however, is impossible by any method presently known to the industry." It was stated further that the plan of building desilting basins on the river somewhere below the coal fields, as recommended by the U. S. War Department, is the most practical method that has been suggested so far to alleviate the condition of the river.

The report has been accepted by the Board as a contribution towards final solution, and is being given further study.

The Iowa State Board of Engineering Examiners will hold its next examination for professional engineering on Dec. 1-2, and land surveying on Dec. 3 in the State House at Des Moines, Iowa.

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Detroit takes steps to solve manpower shortage

Detroit is meeting municipal manpower needs without abandoning merit system principles by making civil service "war appointments" to city jobs, according to information from the Civil Service Assembly of the U. S. and Canada.

The appointments will last until six months after the war in approximately 130 classes of positions; temporary war service appointment may be made in all classes, however. Under the program, qualification requirements were lowered in one or more respects from previous standards; for example, less training and experience now are required of applicants for many positions.

First large city to act

In taking the step, Detroit became the first major city to authorize war service appointments on such a broad basis to counteract manpower shortages arising as municipal employes enter military service or resign to accept jobs in industry.

Appointments for the war service eligible lists are made only when regular eligible lists have been exhausted and, unless otherwise specified, are for 60-day periods which may be renewed.

Rights and privileges of probationary employees are given the war service appointees, but they are not given status in the regular classified service. They are not eligible for the city pension plan, but may be given war service promotions when fully qualified persons are not available.

Type of position filled

Among classes of positions for which war service examinations have been authorized are male typist, office machine operator, accountant, draftsman, chemist, planning analyst, nurse, dentist, sheetmetal worker, bricklayer, institution and public service attendant, and painter.

Many other cities, the Assembly said, have adopted less comprehensive measures in an effort to ease their municipal employment situation.

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Brick arch replaces iron in bombed tunnel

Bomb damage to a twin-tube electric railway tunnel lined with cast-iron segments in Glasgow, Scotland, necessitated extensive repair work and led to the replacement of the upper half of the lining with reinforced brickwork. The tunnel is the approach of the Subway Railway to its submarine crossing of the River Clyde. Each tube is 11 ft. in clear diameter inside the exposed iron lining, and the tubes are 18 ft. c. to c. The earth cover was topped with a bowling green. Explosion of a bomb landing in the green broke in the crown segments, allowing the soil to pour in and block both tubes for a distance of about 30 ft.

According to the *Railway Gazette* (London), from which the accompanying information is taken, cracks extended 15 to 28 ft. from the original break and continued to develop. At one point a crack extended entirely around the lining and opened about an inch in width. Both tubes were promptly closed by bulkheads to prevent the clay and soil from sliding down the grade.

A cofferdam 40 ft. square was employed to uncover the tunnels for inspection and repair, water-bearing muddy clay and sand being encountered at a depth of 13 ft. With the tubes uncovered at a depth of some 25 ft., in 15 days, steel sheet piling was driven to a level below the tunnel invert. It was then decided to lengthen the excavation to 110 ft. in order to expose all the cracks in the lining. The entire excavation, 110 x 40 ft., was completed in 49 days. Meanwhile, cement grout at 70-lb. pressure was being pumped into the soil under the adjacent parts of the tubes, so as to prevent further settlement.

After all damaged lining segments were removed, a steel form was placed for a new concrete invert 2 ft. thick. Undamaged cast-iron segments were salvaged and used to build up the new tubes to the springing line. Concrete was deposited to fill the space between the tubes and the space between them and the steel sheeting. Upon this backing were built two new arches of four-ring brickwork, laid in cement and reinforced by expanded metal placed between the second and third rings.

Landfill refuse disposal adopted for Army camps

Many Army camps, particularly those in the southern states, have adopted or are planning the inauguration of the sanitary landfill system for the disposal of refuse. This action followed an order issued last summer directing that an investigation of landfill disposal be made in order to eliminate the need for incinerators, the construction of which calls for the use of critical materials.

Procedures have been formulated, equipment has been selected and field men are being trained to carry on this work. It is expected that low-lying areas adjacent to camps will be reclaimed for drill grounds, parking and recreational uses by the adoption of sanitary fill.

Details of the Army technique will be published in an early issue.

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Ask federal check on Jersey housing project

Senator Harry S. Truman, chairman of the special Senate investigating committee, announced last week that the Department of Justice had been asked to investigate construction of defense housing at Winfield, N. J.

Senator Truman said the case had been turned over to the Department's criminal section, which had been asked to place responsibility and prosecute if necessary. The committee reported that preliminary investigation of the work revealed "lack of planning, disregard of costs, and inefficient and improper methods of construction."

U. S. Navy photo

Manpower is motive power for Seabees

Landing on a South Pacific island, the Navy's Construction Battalions utilized every man to bring their necessary equipment ashore and put it in place in the shortest possible time. Shown above are a group of "Seabees" bringing up a small pump from a beachhead landing.

H. W. Richardson discusses progress of work on the Alcan Highway with Brig. Gen. James A. O'Connor, chief of the Northwest Service Command, who is in charge of all construction and supply operations in Alaska.

Alcan Highway officially opened—trucks go north

Exactly seven months and seventeen days after construction operations began, trucks started moving northward over the 1,670-mile Alcan Highway on November 21.

With a group of 250 Army officers and government officials witnessing the event on Soldiers Summit, overlooking Kluane Lake, Yukon Territory, Ian MacKenzie and E. L. Bartlett, Secretary of State of Alaska, cut a red, white and blue ribbon to officially open the road.

The witnesses included Brig. Gen James A. O'Connor, commanding the Northwest Service Command, Col. K. B. Bush, chief of staff of the command, Grover A. Whalen, Maj. Gen. George R. Pearkes, chief of the Pacific Command of the Canadian Army, and others who braved an Arctic morning to witness the ceremony.

As the ribbon was cut, a 1½-ton truck that had made the trip from Dawson Creek, the road's southern terminus, to White Horse, led a line of freight trucks past the barrier toward Fairbanks. Driven by Corp. Otto Gronke of Chicago and Pvt. Bob Bowe of Minneapolis, the truck had made the run from Dawson Creek to Soldiers Summit in 71 hours.

Messages of congratulation from Vice President Henry A. Wallace; Governor Ernest Greuning of Alaska; Secretary of War Stimson, Lt. Gen. Brehon B. Somervell, and others were read as part of the ceremony.

ALCAN HIGHWAY DIARY

Harold W. Richardson of Engineering News-Record reports his progress in covering this strategic construction job.

FAIRBANKS, ALASKA, OCT. 23—Arrived here by plane from Whitehorse day before yesterday, and am leaving by plane this morning (weather permitting) for Tanacross to get back out on the road again. Col. Wheeler is supposed to be out there this morning, but I have made arrangements to meet O. W. Crowley of Lytle & Green, managing contractors on this end, at Tanacross. Crowley, is secretary of the Central Branch, A.G.C., at Des Moines. He is up here as general manager for Lytle & Green. Transportation on this part of the job is much more difficult than down below. You simply have to wait until something goes out on wheels or in the air.

Flying in from Whitehorse we ducked under a low bank of clouds, just skimming the tree tops. So the pilot started hunting moose. When he would spot one, he would bank the plane that way to point it out. We saw 12 in about 20 minutes.

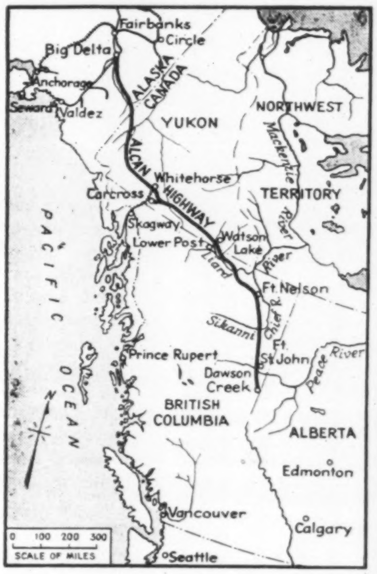
Should clean up this Alaska section by early next week and then I'll be ready to start back. It will take me at least a week to get from Whitehorse to Chicago via Skagway. The public relations officer of the Northwest Service Command will go out with me as far as Juneau.

GULKANA, ALASKA, OCT. 28—Completed coverage of the project yesterday—the first person to travel the entire length of the Alcan Highway. Also was present when the leading tractor crews met and closed the last gap on the trail road Sunday, Oct. 25, 4 p.m., 20 miles east of the Alaska boundary in Yukon Territory. I was the only person to take pictures of that event.

When I wrote last from Fairbanks I was trying to fly to some point out on the road. All planes were grounded for two days—but I recognized an old Iowa contractor friend through a store window. He was on his way out to the job so I rode his truck out. Then met Crowley and C. C. Coykendall of Lytle & Green. We were stuck for a day in camp by a sleet storm, then drove on up to the end of the completed road. I left them there while I went on to the end of the trail, 10 miles in a jeep—toughest ride of the entire trip, bouncing over stumps, fording streams, building brush bridges over sloughs, getting gloriously stuck in a patch of partly-frozen muskeg, jolting along through a heavy snowstorm—but we got there in time to get the pictures of the "cats" meeting. Had to use a flash, so I'm hoping the

It's a historic moment, just over the Alaska-Canadian border, when bearded Lt. G. H. Jones, leader of the eastbound bulldozer crew, greets Lt. Ralph W. Hunt, leader of the westbound crew, as the Alcan Highway is "holed through."

synchronizer worked, though I was so cold I could hardly manage the camera after that jeep ride. Then the Army drove me down here, 260 miles, in another jeep. Took us two days. Now I'm ready to go home—but getting out of Alaska is a problem. Coykendall is driving to Big Delta tomorrow, where I might get a plane to Whitehorse. It's only 243 miles from here to Fairbanks over Richardson Highway.



Mighty comfortable here in contractor headquarters—old Gulkana stagecoach road-house built of logs.

SKAGWAY, ALASKA, Nov. 2—Am stuck here for several days. Was supposed to get a boat out of here yesterday afternoon, but the messages got crossed someway and the last boat for 4 or 5 days pulled out before we arrived over the White Pass & Yukon R. R. By the way, that is some railroad—3-ft. gage, 4 percent grades, 22 deg. curves. It drops down from an elevation of 2,900 ft. at White Pass to Skagway in 20 miles.

PRINCE RUPERT, B. C.—I finally got away from Skagway on Wednesday, Nov. 4 at 5 p.m. on the good ship Caroline, an 80-ft. 66-ton yacht taken over by the government from a Seattle owner. It was operated by the PRA and the Elliott Co. (contractor on transportation for the highway). There were 21 passengers and a crew of 8 crowded into accommodations designed for 15. Not bad, though, as I slept and ate with the crew and had the run of the ship, which meant I spent most of my time in the pilot house. Capt. Emil Smith is skipper of the yacht.

Nice trip down the Inside Passage—you know it was nice when I tell you I didn't get sick, and I'm the world's worst sailor. Arrived at Ketchikan 3 a.m. Friday, and U. S. Immigration insisted on checking us right then, so we all had to dress and appear on deck for clearance. Then the Skipper tried to get Customs to clear us at the same time, but Customs wouldn't get up until 9 a.m., so we didn't get away until nearly noon. Pulled into Prince Rupert at 10 p.m., and learned that the next train east was 7 p.m. Monday night. I missed the Friday night train by 3 hr. Stayed on board that night, as no place in town to stay.

CHICAGO, ILL., Nov. 15—Arrived home yesterday after 45 days on the road covering 9,782 miles by the following means:

Train:	4,953 miles
Plane:	2,065 miles
Boat:	408 miles
Truck-car:	1,396 miles
Jeep:	960 miles

Last Saturday morning before he left Prince Rupert, Skipper Smith of the Caroline introduced me to PRA and Elliott officials who immediately asked me to stay in camp with them until my train left Monday night.

The Canadian National from Prince Rupert to Jasper is a branch line—took us 36 hr. to make 720 miles to Jasper where we arrived early Wed. a.m. and had to lay over until 2:35 p.m. for a mainline train east. Passed through Edmonton Wed. night, and while the train was being serviced I grabbed a cab and recovered my civilized clothes from the McDonald Hotel where I had left them on Oct. 2. The next morning was the first time I left off my high boots in 6 weeks. Seemed queer to wear shoes again.

It certainly was a grand trip. Everyone was so hospitable and cooperative. Will get the story shaped up quickly so that it can be submitted for approval of the War Department as soon as possible. H.W.R.

Long railway tunnel holed-through in Alaska

A railway tunnel 13,000 ft. long on a cutoff being built to improve grades and alignment on the Alaska R.R. was holed through on Nov. 22, just a year after construction started, according to an Associated Press dispatch from Alaska.

At the time announcement of the holing through of the railway tunnel was approved by the military authorities they also approved announcement of the opening of a new link in the highway system of Alaska. The highway has been under construction by the Alaska Highway Commission for the past two years. It runs from the Richardson Highway through the Tazlina and Mantanuska River valleys to Palmer on the road running north from Anchorage, thus giving Anchorage a direct highway connection to the Alcan Highway.

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Announce reorganization of U. S. E. D. divisions

A reorganization of the divisions of the United States Engineer Department to make their boundaries coincide with those of the nine Army service commands in the continental United States was announced last week by the War Department. The U.S.E.D., staffed by officers of the Corps of Engineers, is the branch that carries out War Department construction activities as well as river and harbor work.

To be put in effect as of Dec. 1, the order by Maj. Gen. Eugene Reybold, Chief of Engineers, gives formal effect to changes that have been in progress since the engineers took over the construction duties of the Quartermaster Corps about a year ago.

Principal change announced was merger of three far Western divisions—North Pacific, South Pacific and Mountain—into a single Pacific Division, with headquarters at Salt Lake City (*ENR*, Nov. 19, p. 692). As part of this change, the Denver engineering district was shifted from the Mountain Division to the Missouri River Division.

The corps will still have eleven divisions, but two of them—the Lower Mississippi Valley Division and the Upper Mississippi Valley Division—are concerned solely with navigation and flood control work.

The nine others, coinciding with the service commands, have charge of all military construction projects in their territories, in addition to river and harbor and flood control operations.

THE FIRST meeting of the Louisiana State Licensing Board for General Contractors will be held within the first ten days of January.

Biggest British camp nears completion

The biggest single project yet undertaken by the British War Office is nearing completion, three months ahead of schedule. On two separate sites, totaling about 4½ square miles in area, the War Office will place eight camps for 1,000 men each; engineering, ordnance and signal depots; over one million square feet of storage accommodation; a military hospital, and many other auxiliary huts and stores.

The work has entailed excavation of more than 250,000 cu.yd. of earth; laying of 33 miles of railroad track; laying out 175,000 sq.yd. of roadway; placing 18 miles of water mains and the same length of drains. Covered storage area of the two sites extends over 1,088,000 sq.ft., and the floor area of the living accommodation is 900,000 sq.ft.

When work began late in May of this year, the land was held by nearly a score of private farmers. Few of these farmers, however, had to leave, and no crops were lost outside the area of actual construction. The unspoiled character of the site necessitated, however, special arrangements for transport. For the first two months railway construction companies of the Royal Engineers had the site to themselves, to put down railroad track with sidings, bunkers, water supply and engine sheds, diverting a mill stream for water supply.

This force was followed by a "flying squadron" of the Ministry of Works and Planning, which erected the nucleus of a construction camp. By the end of July, immediately after construction contracts proper had been placed, private firms arrived with their crews, which reached a maximum of 5,000 laborers.

To move the necessary quantities of earth, modern machinery was employed on a scale quite unusual in England. Crawler and other tractors, bulldozers and angledozers, carrying scrapers, sidetank locomotives, and batteries of concrete mixers—many of them of American design and construction—were used.

The huts are mostly the standard structures, filling a long rectangle, designed for the Ministry of Works and Planning and the War Office; Nissen huts, Hall huts, and Iris huts.

Workers were first brought to the site by road, but later were accommodated on the site. Sections of the camp were turned over to the Army as completed.

WPB issues sixth material shortage list

The War Production Board last week issued the sixth Material Substitution and Supply List, prepared by the Conservation and Substitution Branch of the Conservation Division.

The list contains over 500 materials arranged in groups ranked on the basis of their necessity and availability.

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Jersey converts railroad bridge to auto traffic

Conversion of the upper ramp of an old Hudson & Manhattan Railroad bridge over the Passaic River between Essex and Hudson counties, N. J., into a two-lane vehicular highway, has been announced by Spencer Miller, state highway commissioner.

Miller said the project would be complete by Jan. 1.

The conversion was necessitated, Miller said, due to frequent recent breakdowns of three other bridges joining the two heavily populated counties. He said that new reinforcing rods—which would be the only critical material needed—had already been obtained. Approach ramps will be built of wood.

Plan $430,000,000 post-war public works program

Don McBride, director of the Oklahoma Planning & Resources Board at Oklahoma City, announced recently that a $150,000,000 post-war public works program had been authorized by the federal government, to bring the total post-war program now outlined for the state to $430,000,000 in federal and state expenditures.

In all, there will be $300,000,000 spent on flood control, irrigation and hydroelectric projects; $100,000,000 more will be spent on public buildings, and the remaining $30,000,000 will be required for post-war highway construction.

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Toronto seen needing additional war housing

Two thousand permanent dwelling units should be erected in Toronto, Canada, or vicinity, to house citizens other than war workers, according to a recommendation by an advisory committee on housing, reporting to the City Council.

The report recommends also the erection of 1,600 temporary houses in the Toronto area for war workers.

State must grant highway access for city streets

The Oregon state supreme court held recently that the State Highway Commission has no authority to deny city streets access to state highways, even though the highway is located on state-owned right-of-way.

Decision was rendered in connection with a suit brought by the Highway commission against the city of Cottage Grove and affected property owners, after the city had threatened to remove barricades closing off its streets from access to the Pacific Highway. The state contended that the highway was built on state purchased right-of-way.

The court held that the commission had exceeded its authority and that the barricades were illegal.

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Kentucky to free second state-owned bridge

The Covington toll bridge over the Ohio River will be freed of tolls Dec. 1 to give the northern section of the state two state-owned free routes to and from Cincinnati, Ohio, according to Lyter Donaldson, state highway commissioner.

The bridge was bought in 1937 from the Chesapeake & Ohio Railroad for $2,100,000. Commissioner Donaldson said that toll collections to date had been a little more than expected and the balance of $120,000 due the original owners, plus interest, would be paid off by Jan. 1.

The second free bridge is the Newport Bridge, also across the Ohio River, bought from the Louisville & Nashville R.R. some years ago.

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Grant "E" award to ninth U.S. construction company

High ranking Army and Navy officers were present at Burns City, Ind., recently, to watch presentation of the joint Army-Navy "E" pennant to the Maxon Construction Co., Inc.

The company was the ninth construction firm to be so honored. The others recently received the "E" burgee (*ENR*, October 29, p. 609). The award was presented for outstanding construction efforts at a U. S. naval ammunition depot.

In attendance at the ceremony were Rear Admiral John Downes, Commandant of the Ninth Naval District; Rear Admiral H. G. Taylor, Superintendent of Civil Engineers, Bureau of Yards and Docks; and others. C. W. Maxon, president of the company, received the award.

FWA official explains contract procedure

In answer to numerous requests by contractors for clarification of procedure in handling bid openings and contract awards, Kenneth Markwell, Regional Director of Region No. 2, Federal Works Agency, last week released the following list of suggestions:

Bids for projects approved for Federal construction are opened at the FWA regional office, and contracts are awarded by the Federal Works Agency. Plans and specifications for these projects can be obtained from the Regional offices.

If a project is approved for non-Federal construction by the applicant, and bids are scheduled to be opened at the office of the applicant's representative, contractors who wish to submit bids should write to the architect or engineer or the applicant's representative for copies of plans and specifications.

In the future, a majority of the hospital buildings, schools and recreation centers approved for construction as war public works projects, will be assigned by the Federal Works administrator to the Public Buildings Administration—a constituent unit of the FWA. It is suggested that contractors write to the Commissioner of Public Buildings, North Interior Building, Washington, D. C., and ask that their name be placed on the mailing list to receive announcements of bid opening dates and contract awards for PBA projects. Plans and specifications for projects assigned to the Public Buildings Administration can be obtained from that agency or from the applicant's representative. They are not available in FWA regional office.

The deposit required for copies of plans and specifications ranges from $5 to $25, according to the scope of the project, and the number of blueprints involved.

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A.E.D. sets January date for annual convention

The Associated Equipment Distributors will hold its twenty-fourth annual meeting January 11 to 13 at the Edgewater Beach Hotel in Chicago, according to the Association's Executive Offices in Washington, D. C.

First day of the convention and the morning of the second day will be devoted to distributors' problems only. Beginning with a luncheon on the second day, the sessions will be open to distributors and manufacturers.

Vice-President E. P. Phillips, of Richmond, Va., is chairman of the program committee. T. W. Harron, of San Francisco, president of the group, will preside.

Construction machine pool in N. Y.

Construction firms and war procurement agencies needing heavy-duty construction equipment to carry out war and essential civilian work may secure such equipment through a new service established by the War Production Board at the New York-northern New Jersey regional headquarters, in New York City.

This service, established to assure an adequate supply of tractors, cranes, shovels, motor graders, and other types of equipment, is made possible by the reports submitted to regional headquarters of the Used Construction Machinery Branch under Limitation Order L-196, which requires owners to report their holdings of such equipment and its availability for rent or sale.

Inauguration of the service follows announcement of Limitation Order L-192 (*ENR*, Nov. 12, p. 669) prohibiting the sale of new construction equipment, except upon specific authorization of the director-general for operations.

The job of assembling reports from owners, and providing information on the availability of the equipment to contractors and war agencies in this area, will be handled by George W. Black, regional representative of the branch. Mr. Black will be aided in field service work in central and western and northern New York by Fred F. Stoddard, of the Syracuse WPB district office.

Of some 15,000 items of equipment reported to the Branch to date, more than 2,800 are listed as available for rent or sale. Advice relative to repair of equipment and assistance in overcoming transportation difficulties encountered in moving equipment to the site of projects, as well as aid in renting or disposing of equipment to contractors, the Army, Navy, Maritime Commission or Lend-Lease Administration will be given to owners.

All records are kept in the New York City office, 122 East 42nd St.

Mapping under way for new Columbia River dam

Mapping of the upper Columbia River, 53 miles below Grand Coulee Dam, as a preliminary to the proposed construction of a hydroelectric dam at Foster Creek, is under way by the Seattle office of the U. S. Army Engineers.

The proposed Foster Creek Dam is one of a series of six proposed Columbia River dams that would develop 90 percent of the river's power, available between the Canadian border and the junction with the Snake River.

In March of this year, the House of Representatives ordered a review of the 1931 report of the Seattle district engineer on the proposed power development. In April, the Geological Survey began collecting data at the site. Since that time the Army Engineers have made several field inspections of the project.

The proposed location has a solid granite bedrock on the south bank, the bedrock extending across the stream. The north bank rises about 250 ft. above the water on a steep slope that ends in a level bench. The dam, estimated in 1931 to cost between 55 and 64 million dollars, would be about 2,000 ft. long and 225 ft. high.

The completed survey will be submitted to the chief of engineers some time next year, it is expected.

Recent floods of the Potomac and other rivers in Maryland (*ENR*, Oct. 22, p. 534) caused damage totaling $61,650 to state and county roads.

A.G.C. broadcasts tell industry's war work

Prepared by the Associated General Contractors of America, Inc., a series of regular radio broadcasts, to be made over local radio stations every other week, are now available to tell of the construction industry's contribution to the war effort.

Employing a cast of professional actors, music and sound effects, the programs will dramatize the various types of work performed by the construction industry. Each broadcast will conclude with a brief message from an outstanding government or industry official relating to war construction.

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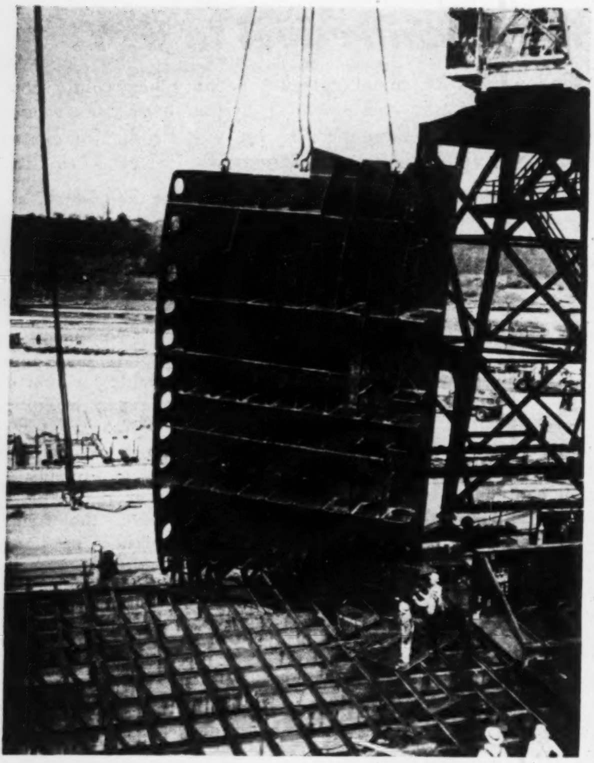
Plan construction of grade crossing overpass

To relieve what has been characterized by the Ohio Department of Highways as "one of the worst bottlenecks in the Columbus district", the department will receive bids Dec. 22 for construction of an $850,000 railroad grade crossing overpass.

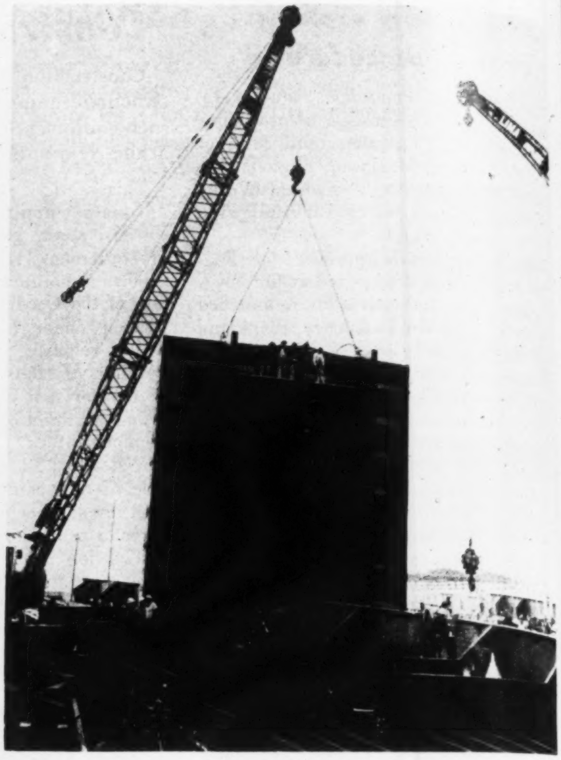
The bridge will span the tracks of the New York Central, Baltimore & Ohio, and Pennsylvania railroads and Fifth Avenue in Columbus.

Hal G. Sours, director of the department, said the Public Roads Administration had advised him that permission had been granted for the purchase of necessary steel.



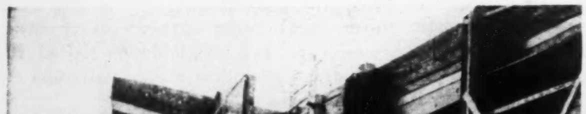
1

An inner bottom section of 15-ton weight being lifted to place by one of the revolving cranes.



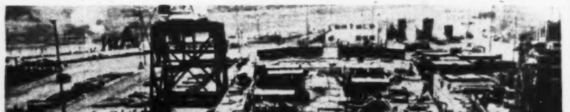
2

The first transverse bulkhead goes into place well forward. Note that the slope of the way is to the right.



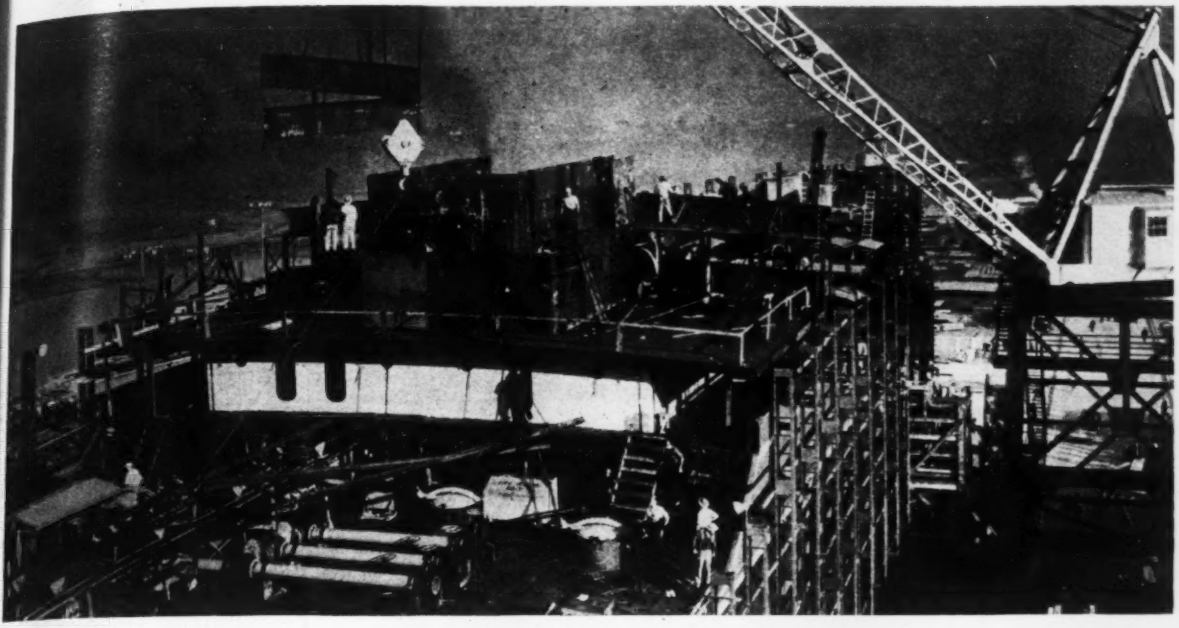
3

Wing tank sections taking shape. Note timber struts braced against temporary bracket above the turn of the bilge.



4

Core of vessel, assembled first, is being enclosed by wing tanks. Looking forward from the stern.



5

Placing large prefabricated sections for the midship deckhouse.

16,500-Ton Tanker Launched in 115 Days

The first of a fleet of 56 large tankers, to be built at the Swan Island yard of the Oregon Shipbuilding Co. slid into the water Oct. 24, only 115 days after keel laying. This is claimed as a new record for this class of ship. (At the time of this launching the best previous record, made in an eastern yard, is reported as 202 days). The speedy construction is considered the more notable because, less than 7 mo. before, transcontinental air liners were operating out of the airport that has since been transformed into the Swan Island shipyard.

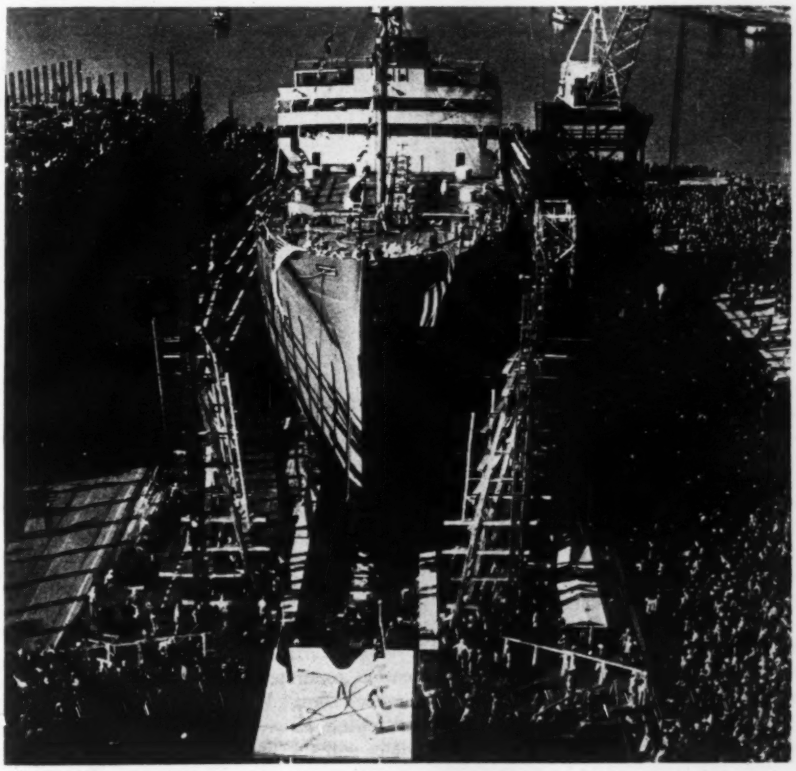
Data released about the new tankers include the following:

Dead weight tonnage	16,500	
Displacement	21,694	
Cargo tank capacity	138,000	bbl.
Fuel storage	5,500	bbl.
Overall length	523½	ft.
Beam	68	ft.
Depth	39	ft. (plus)
Capacity of turbo-electric drive	6,000	h.p.

As compared to the EC-2 "Liberty Ships", the new tankers have greater speed, 2½ times as much driving power and nearly twice the weight in steel and in cargo tonnage.

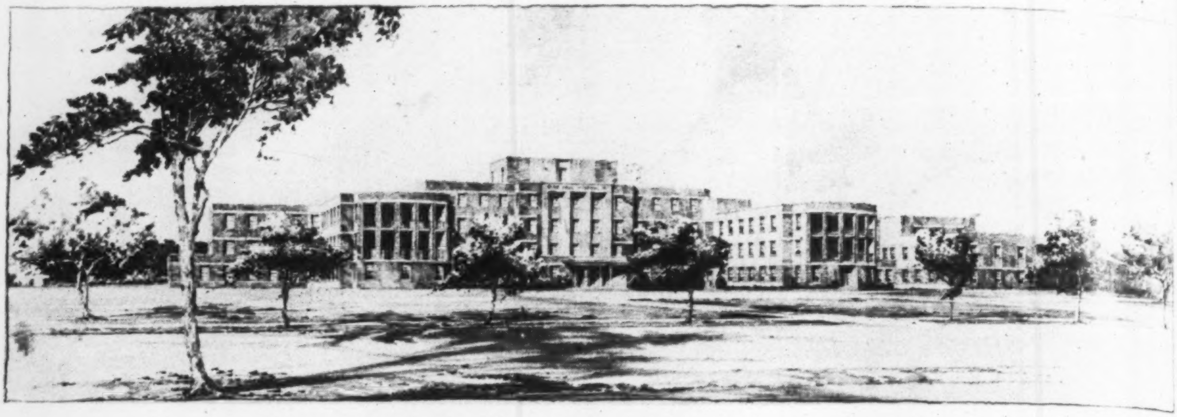
Steps in construction are shown in sequence by illustrations 1 through 6.

Sponsor at this first launching was Mrs. Alexander Bruce McEachern whose husband held major construction contracts on all three of Kaiser's Oregon yards and whose father-in-law, J. A. McEachern, is president of the Oregon Shipbuilding Corporation.



6

The first of the 56 large oil tankers as it starts to slide down the launching ways.



Plans completed for Virginia war worker hospital

Shown above is an architect's drawing of the new St. Vincent de Paul Hospital, under construction at Norfolk, Va., at a cost of $1,732,000. Work on the structure was started on October 22. It is to provide medical facilities for civilian war workers and Service men. The hospital is one of ten such projects to be built in the Hampton Roads area of Virginia by the Federal Works Agency.

The hospital building will be of brick and frame construction, will include a three-story nurses' home and accommodate 200 patients.

Plans were drawn by James R. Edmunds, Jr., architect, of Baltimore, Md.; general contractor is M. Millimet & Associates, of Norfolk.

BRIEF NEWS

THE FEDERAL WORKS AGENCY has notified the city engineer of Montgomery, Ala., that priorities have been granted for materials to construct the extension of the city water works which is expected to give the city a 2,000,000 g.p.d. water supply. The project includes several wells, a reservoir, and a new pumping station, at an estimated cost of $486,000.

PRELIMINARY figures compiled by the Pennsylvania Department of Highways shows that more than 830 miles of road have been improved during the 1942 construction season.

SURVEYS made by the Bridgeport, Conn. Housing Authority, the Chamber of Commerce and the Manufacturers' Association, indicates a minimum of 3,000 housing units must be built in addition to projects now under way in the Bridgeport area. It is estimated that 15,000 more industrial workers must be provided with houses.

BECAUSE war restrictions have made it difficult to get standard types of repair materials, engineers of the North Carolina Highway and Public Works Commission are experimenting with a method of repairing stretches of concrete pavement that have settled, by jacking up the sunken or cracked pavement, drilling holes through the concrete and pumping enough mud into the cavity to raise the pavement to its original level. To date, the experiments have proved acceptable.

ARMY ENGINEERS have been asked to reconsider the possibility of opening the old Jefferson waterway from Jefferson, Texas, to Shreveport, La., and developing the waterway above Jefferson, on Cypress Creek, to serve iron ore plants in East Texas.

THE PORTLAND district, U. S. Army Engineers, during the period January 1 to June 30, 1942, awarded 318 contracts for a total of $87,350,000 in value, according to a recent announcement.

THE ARKANSAS State Highway Department has announced that its maintenance fund has declined 8.9 percent in the seven months' period ending October 30. During those seven months, beginning April 1, the fund received a total of $1,788,879.43 compared to $1,964,233.70 in the corresponding period of 1941. In October, 1942, revenue was off 13 percent as compared to 1941.

ENGINEERING enrollment for the fall quarter at Iowa State College has set an all-time record of 2,219 students. This was a 16 percent increase over 1941.

A COURSE in engineering drawing designed to train draftsmen to meet the needs of war production started at the University of North Carolina at Chapel Hill, November 2. The 24-week course, given under the auspices of the engineering, science and management war training program of the U. S. Office of Education, will be taught by Prof. Ralph M. Trimble.

CONSTRUCTION of a Bureau of Reclamation concrete mixing plant at Grand Coulee Dam, Washington, is now in full swing. Excavation is practically complete, and the first concrete footing was placed a week ago. The plant will permit early removal of a large plant now in operation, and make permanent provision for such minor concrete work as may be coming up in the maintenance of the dam.

THE ALEXANDRIA, La., city council has awarded a $212,889.50 water extension system contract to the Dellone Construction Company of Dallas, Texas. This contract calls for construction of pipelines from six water wells to connect them with the city's system.

PRESIDENT Manuel Avila Camacho of Mexico recently turned over $280,000 to the Ministry of Public Welfare for the establishment of public general hospitals at Saltillo, capitol of Coahuila state and Tuxpan, Coatzcoalcos, Cosamalopan and Puerto Mexico, key Gulf of Mexico towns in Vera Cruz state, and Hermosillo, Ciudad Obregon and Ague Prieta, Sonora state. Work on these hospitals is to start within 30 days.

MORE THAN $400,000 in construction work has been put on the schedule of Tulsa, Okla., in a city call for bids for building a water force main and a third storm sewer project for the eastern end of the municipality. Bids on the work, which will include installation of a 36-in. force main from the Mohawk park pump station to mains at Pine Street and Utica Avenue, will be received November 24.

ADMINISTRATION of La Angostura dam in the Yaqui river valley, Sonora, Mexico, one of the four big irrigation works the Mexican Government has launched, has been placed in administrative charge of the Richardson Construction Company.

WPB gives new consideration to Bureau of Reclamation projects it shut down

Dispute with Ickes over shutdown ordered on many projects results in re-opening of consideration on Colorado-Big Thomson and others.

Continuing the dispute between the War Production Board and Secretary of the Interior Ickes (*ENR*, Nov. 5, p. 618) over continuation of construction on reclamation projects, WPB last week re-opened consideration of its shutdown order on the Continental Divide Tunnel of the Colorado-Big Thompson project and several smaller projects; reiterated its demand that most of the larger reclamation jobs be halted; authorized continuation of work under low priority ratings on eight small projects, and permitted enough work to go forward to protect existing installations on nine projects.

Ickes, meanwhile, has not yet yielded to any of the WPB orders, and work is continuing on all the reclamation jobs.

Work on which a decision has been reserved includes, in addition to the tunnel job, housing at Boulder City and work on the Gila, Minidoka, Altus, Klamath, Provo River and Heart Mountain projects.

Work may continue to the extent possible, with the present low priority ratings, on certain minor structures in connection with the Boulder canyon, Coulee, Central Valley, Buford-Trenton, and Owyhee projects, and on transmission lines at Parker Dam.

Limited construction necessary to prevent damage to work already finished is permitted at Anderson Ranch Dam in Idaho, and at Keswick Dam in California, minimum facilities to protect the fish industry may be installed.

Central Valley's Shasta-Oroville transmission line may continue, but the Shasta-Antioch line must halt. Portions of the Coachella Canal that can be finished this year may continue. The Shirley and Terry units of the Buffalo Rapids project—now near completion—may be finished, but the Fallon unit must stop.

Work being done by conscientious objectors at Deschutes and Rapid Valley projects may continue. Miscellaneous work, to the value of $100,000 may be finished at Grand Coulee, and irrigation may be provided for 15,000 acres at the Roza Division of Yakima project.

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Navy commissions huge Seabee training camp

Commissioning ceremonies for Camp Peary, new training center for the Navy's Construction Battalions, were held on Nov. 16.

Located near Yorktown, Va., this new Naval Construction Training Center was placed under construction less than two months ago, and although not yet complete, the commissioning ceremonies mark the camp's induction into service. The rush to complete the camp is all the more urgent now that the authorized strength of the Seabees has been doubled —to a total of 210,000 men. (*ENR*, Nov. 5. p. 613).

The brief ceremony was in the charge of Admiral Manley H. Simons, commandant of the Fifth Naval District. Lt. Comndr. R. H. Meade (CEC), Peary executive officer, introduced Capt. J. G. Ware, commander of all three NCTC units in the area—Camp Allen and Camp Bradford at Norfolk being the other two. Rear Admiral L. B. Combs (CEC), assistant chief, Bureau of Yards and Docks, made a brief address praising the contractors' men who had speeded camp construction.

When Camp Peary was begun it was the plan to abandon the camps in the congested Norfolk area, and presumably this plan is still to be followed, although the increase in the size of the personnel is a later development and might conceivably require that all three camps be kept in operation.

Set up road condition reporting service

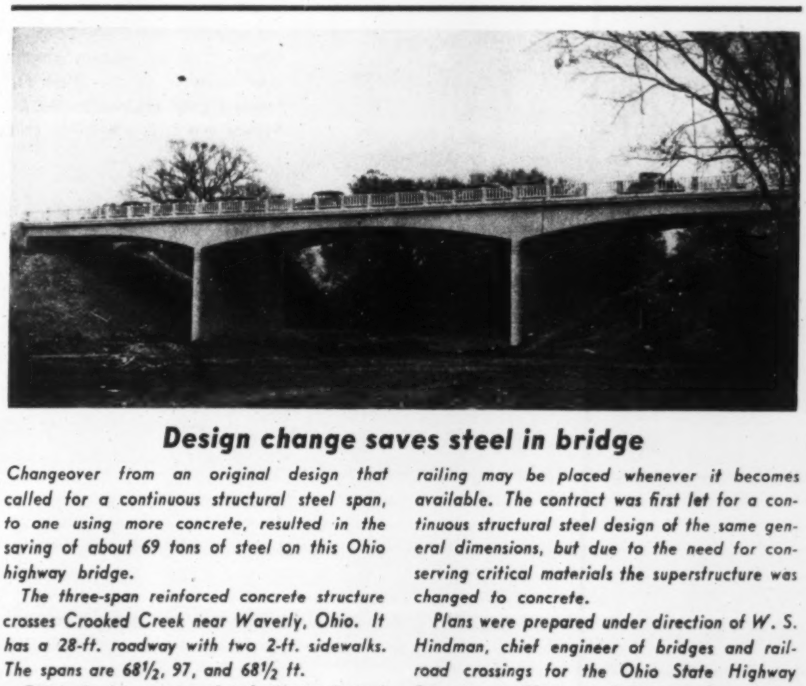
The California State Highway Patrol has set up a road-reporting system in cooperation with military authorities, to provide information on highways and their condition.

An operations room is the nerve center of the system. In it is gathered a large amount of important information regarding highways, bridges, underpasses, overpasses, and other communications facilities, and their location.

To make the information readily available and in such form that it may be available with as little delay as possible, maps with information pegged on them, keyed to card files, are set up. The different factors to be considered are so complex that it has been necessary to place only certain information on each map. Therefore, there is a map indicating road conditions; another indicating substandard structures; another showing bivouac sites; another showing highways in their order of importance, and another showing the various communications facilities available.

Officers of the patrol in the field have been instructed to forward information by teletype daily as to condition of all roads in their district. As information arrives, a colored flag is placed on the proper map to show local conditions.

Another service provided by the highway patrol lists all bridges, overpasses and underpasses, showing their clearance or varying limits.



Design change saves steel in bridge

Changeover from an original design that called for a continuous structural steel span, to one using more concrete, resulted in the saving of about 69 tons of steel on this Ohio highway bridge.

The three-span reinforced concrete structure crosses Crooked Creek near Waverly, Ohio. It has a 28-ft. roadway with two 2-ft. sidewalks. The spans are 68½, 97, and 68½ ft.

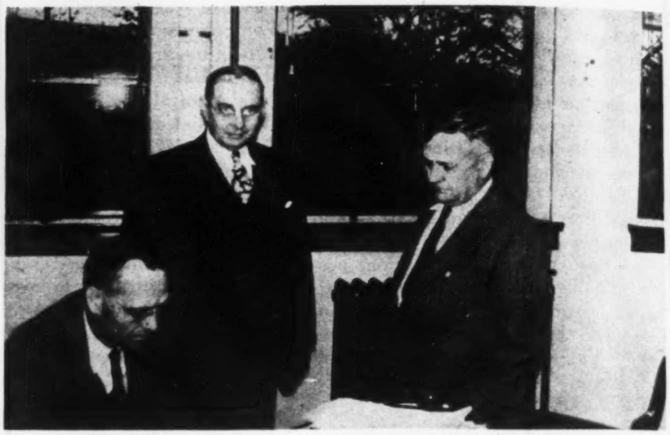
Original plans contemplated structural steel railing panels between the concrete posts, but timber panels were substituted for these, with connections so made that the original steel railing may be placed whenever it becomes available. The contract was first let for a continuous structural steel design of the same general dimensions, but due to the need for conserving critical materials the superstructure was changed to concrete.

Plans were prepared under direction of W. S. Hindman, chief engineer of bridges and railroad crossings for the Ohio State Highway Department. The Lewis & Frisinger Co., of Ann Arbor, Mich., were the general contractors, and C. F. Repfogle, of Circleville, Ohio, was sub-contractor.

MEN AT WORK

Above: An experiment to determine the most satisfactory amount of yellow talc to color the center dividing strip on a bypass road in the Norfolk, Va., area, holds the interest of this group. They are (left to right): E. J. WICKRE, inspector, Virginia State Highway Commission; PAUL CARRIGER, associate highway engineer, Public Roads Administration; C. W. KESTNER, resident engineer, Virginia Highway Commission; W. C. LONG, superintendent for Heckler Bros., the general contractor; R. M. JOHNSTON, inspector of highway construction, Virginia Highway Commission; and W. S. GOLDEN, testing engineer for the same organization.

Above: How to continue first class maintenance on the state highway network of Virginia is under discussion between C. S. MULLEN (left), chief engineer of the Virginia State Highway Department, and A. H. BELL, locating and planning engineer. Both men have been with the Virginia department for many years; solving difficult problems when few materials and little money are available is no new job to them.



Above: Wartime highway construction are discussed by M. L. O'NEALE (left) chief engineer of the West Virginia State Road Commission; C. L. VICKERY (center) chief engineer in the Richmond, Va., district office of the Federal Works Agency and L. L. JEMISON, bridge engineer for the road commission.

Below: Details of a tough sewer job at Portsmouth, Virginia, are discussed by (left to right): WILLIAM DRIVER, superintendent for the contractor, N. A. K. Bugbee & Co., Trenton, N. J.; H. B. WILDSCHUT, resident engineer for Greeley & Hanson, architect-engineer for the work; and HERBERT W. BRADLEY, in general charge for the Bugbee firm.

Above: **CHARLES GILMAN HYDE**, professor of sanitary engineering, U. of Calif., stopped in Chicago to inspect bridge reconstruction work with City Engineer **W. W. DeBerard**.

Above: **COL. HENRY HUTCHINGS, JR.** (seated), district engineer at Louisville for the U. S. Engineers, and **W. I. GREGORY**, principal engineer in charge of the engineering department at the same office, take time out to check over their huge program during past months, and the rapid expansion that has been possible. Both men are oldtimers to rapid construction.

Left: **R. H. BOWER**, chief engineer, Indiana State Highway Department since May, 1942, has been a member of the department's engineering staff for many years. Problems of maintaining highways under wartime conditions are only one of his principal problems at this time.

Right: **M. G. JOHNSON**, city engineer of Indianapolis, Ind., is in the middle of his city's campaign to aid the nation's drive for scrap metal. He is directing salvaging operations aimed at recovery of some 6,000 tons of old street car line rails for conversion into needed scrap metal.

Above: Four officials of the North Carolina section, American Water Works Association, posed for this picture during a recent convention at Durham. Left to right, they are: **J. W. KELLOGG**, director and recipient of the McKean Maffitt Award; **D. McGREGOR WILLIAMS**, retiring chairman; **ALBERT O. TRUE**, past chairman, and **R. S. PHILLIPS**, secretary-treasurer.

MEN AND JOBS

Charles R. Blood, Sacramento, Calif., city street engineer, has taken a leave of absence to report as a senior engineer with the Corps of Engineers, with the rank of major.

William D. E. Colgan, of Wethersfield, Conn., senior highway engineer in the state highway department, has been loaned temporarily to the Groton-New London Bridge Commission to set up facilities needed for the opening of the new bridge across the Thames River.

Maj. George M. Haley, area engineer at the army air force basic training center at Kearns, Utah, has been transferred to Wendover. Replacing Major Haley as area engineer will be **Capt. Martin C. Higgins,** who will also continue his duties as area engineer in Salt Lake City.

Samuel Bruce McConnell, district engineer at North Bay for the Canadian Pacific Railway, has retired on pension, after more than 44 years of service with the company. He is succeeded by **J. R. Caswell,** of Toronto. Starting his service in 1898, Mr. McConnell held several positions in the Quebec district before coming to North Bay.

Maj. Thomas P. Browne, commanding officer of the 403rd Engineer Battalion at Camp Butner, N. C., has been promoted to the rank of lieutenant colonel. A water supply officer in civil life, Colonel Browne cooperated with naval and other engineers in designing and building water supply systems at the naval base at Guantanamo Bay, Cuba, San Juan and Ponce, Porto Rico; Borinquen Field, Porto Rico, and other work.

Capt. Samuel T. Whitebread has been assigned as acting area engineer for an Army project in Shawnee County, Kansas.

Lt.-Col. Zebulon C. Hopkins, of Dover, Del., a civil engineering graduate of Lehigh University, has been made commanding officer of a new marine corps air station in North Carolina. **Lieut C. G. Prahl,** U. S. Navy, naval officer in charge of construction, is assisted by **Lieut.** (jg) **O. L. Lider** and **Ensign M. R. Parrish.** Engineers at work on the project include **H. G. Stewart,** project manager for Olsen,, Deitrick, Carr and Griener, architects and engineers; **F. M. Kaiser, William M. Lees** and **H. S. G. Verlander,** project manager, general superintendent and office manager, respectively, for the North Eastern Construction Company of New York.

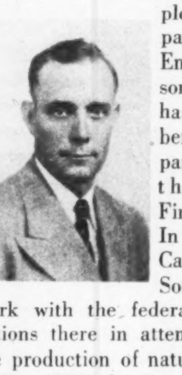
T. G. Moody, an engineer with the North Carolina State Highway & Public Works Commission, Raleigh, has been commissioned a lieutenant in the Navy Civil Engineering Corps.

F. A. Stafford, Martin County, Fla. engineer for the past 14 years, has been commissioned a captain in the Corps of Engineers.

N. L. Casey has become sanitary officer for Santa Rosa County, Fla.

John C. Watts has been made chief engineer of the architect-engineering division at the Sunflower Ordnance plant in Kansas.

Maj. Charles C. Stelling, of Augusta, Ga., formerly a civil engineer with the Georgia and Florida Railroad, is now stationed at Fort Knox, Ky.



Joe L. Campbell, civil engineer employed during the past year by U. S. Engineers in Jeffersonville, Ind. area has joined the Rubber Reserve Company, a subsidiary of the Reconstruction Finance Corporation. In his new work Mr. Campbell will go to South America to work with the federal governments of nations there in attempting to increase the production of natural rubber. From 1937 to 1939, he was employed by Firestone Plantations Company in Liberia, West Africa.

Lieut. Joseph B. Diamond, past president of the Bronx County Chapter, New York State Society of Professional Engineers, has been ordered to the Naval Construction Training Center at Norfolk, Va., for service with the Navy Construction Battalions.

Ivan J. Ely, Charleston, W. Va., construction engineer who entered the Army as a private in 1941, has been promoted to master sergeant and supervisor of construction at Camp Butner, N. C.

Allen R. Moore of Mount Vernon, Wash., has been appointed civil engineer for the Yakima reclamation project near that city.

Capt. A. S. Anderson, former West Palm Beach, Fla. city manager, has been called to active service of the U. S. Navy, assigned to the Bureau of Yards and Docks in Washington.

Lieut. William F. Merritt, USNR, is naval officer in charge of construction on another Marine Corps station in North Carolina. **Lieut. J. K. Flynn** is plans officer, and **Lieut. W. M. Gustafson** is accounting officer. Others on the construction staff include: **Lieut. H. T. Suedkamp, Ensign A. F. Morel; C. T. Blount,** cost engineer; **A. M. Ferebee,** project manager, **L. L. Barnum,** chief naval civil engineer; **G. Rock,** chief Navy inspector.

J. T. Bullen, for many years parish engineer in Caddo parish, La., has been elected superintendent of public works for East Baton Rouge parish.

R. E. Farmer, division engineer with the Canadian Pacific Railway at Woodstock, N. B., has been transferred to a similar post at Sudbury, Ont.

William F. Kenworth has been named construction advisor for the Federal Public Housing Authority in the Bridgeport, Conn. area. **Louis Atwater** has been named chief inspector for the Bridgeport Housing Authority.

Lieut. Commdr. Richard A. Williams, USNR, is now naval officer in charge of construction of Marine Corps station in North Carolina.

Frank Upman, Jr., formerly deputy commissioner and for a time acting highway commissioner for the Connecticut Highway Department, has been appointed representative of the Connecticut War Industries Commission in Washington, D. C.

Robert R. Livingston, of Germantown, N. Y., has been appointed a member of the New York State Bridge Authority. He succeeds the late Raymond B. Kennedy.

Col. Henry Hutchings, Jr., U. S. Army District Engineer at Louisville, Ky. since 1940, has been transferred to an unannounced post. He is succeeded at Louisville by **Col. Henry F. Hannis,** formerly district engineer at Wright Field, Dayton, Ohio.

Sam Leslie has been appointed city engineer of St. Joseph, Mo. to fill the post made vacant by the death of Clayton O. Judson.

C. E. Ellerbrook, Wyandotte County, Kansas, engineer, has resigned to enter war work. He is succeeded by **M. R. Nicol,** who has been on the county engineer's staff since 1917.

This Week on the Scrap Front

The nation needs scrap metal—17,000,000 net tons of it—by Dec. 31 of this year to enable the steel mills to meet the heavy demands of a rapidly expanding war industry. To get this scrap from its resting place in junk yards, contractors' lots and city storage yards, to the mills, is a job which the engineering and construction industry can do well. Here are some of the developments of last week:

A specific example of what a governmental construction unit, such as a county highway department, can do in the matter of conserving steel was contained in a report submitted last week by L. R. Barnes, superintendent of highways for Wayne County, N. Y.

Mr. Barnes said that although it has been the custom in the past to build some 15 miles of new county road each year, the 1942 program as carried out provided only for the construction or reconstruction of 12 bridges located on roads which normally would have been built in their entirety. The bridges range in size from small concrete arch structures to a 148-ft. span creosoted timber structure over the Clyde River.

In order to eliminate the use of critical construction materials wherever possible, concrete arches were used to save new steel reinforcing; greater spans that normally would require reinforcing bars were designed in such a way that old metal stringers from old bridges were incorporated in the new structures as substitutes for new steel.

Plate girder beams salvaged from an old railroad viaduct west of Lyons were used in one 28-ft. span structure in the town of Sodus. Three of the larger spans, including a new structure over the Clyde River, were of creosoted timber design. All bridges were designed to sustain a safe load of 15 tons, the minimum driving width being 20 ft. as compared with 12 to 14 ft. on the old bridges.

The old cast iron railroad bridge, built in 1867, although in weakened condition, provided small steel stringers that were used in some of the new concrete structures, besides yielding 12 tons of scrap iron.

Through use of these methods, the total cost of the 12 structures complete, including materials furnished by the county, will approximate $41,000.

* * *

Meanwhile, many other facets of the scrap drive came to light last week:

A "road magnet" built three years ago by the Chicago Surface Lines to collect sharp metal objects from streets traveled by its buses, has been attached to the bottom of a special service truck and collected 800 pounds of metal in July, and more than 1,600 pounds in October from 195 miles of streets. Tin cans, nails, hairpins, paper clips, bottle tops and tobacco tins were included in the haul. The metal was turned over to the scrap drive.

* * *

Prince George's County, Md., commissioners have authorized scrapping of two metal bridges no longer in use, one of them the old Patuxent River span and the other the Sellman Bridge at Sellmansville. About 40 tons of scrap metal are expected to be made available.

* * *

Almost 80,000 business firms reported 200,000,000 lbs. of idle and excessive inventories of copper and copper base alloy products, and the government is instituting action in cases where holders have been negligent in filing reports, according to the Materials Redistribution Branch of the War Production Board; 125,000,000 lbs. of copper have been voluntarily offered for sale, and 93,000,000 lbs., or about 75 percent of it, has already been allocated to war production.

Philadelphia really digs deep for scrap. Wreckers recently began digging into the pavement at 4th and Callowhill Streets to reclaim more than 100 tons of steel and iron that had made up part of an underground refrigerator room owned by an adjoining department store.

* * *

In New York City, more than 250 tons of copper, and 50 tons of rubber used in electrical conduits at the 1939-40 New York World's Fair were donated to the scrap drive by the park department. The conduit originally was left in the ground by the fair corporation at the end of the exposition, to serve lighting needs of a future park on the site.

The park department said that enough conduit will be retained to feed the present park lighting system.

* * *

The North Carolina highway and public works commission has contributed about 7,000,000 lb. of scrap metal for use in the war effort, collected from highway shops, prison camps and other sources.

* * *

Lessing J. Rosenwald, director of the conservation division of the War Production Board, announced that federal agencies have been asked to launch an intensive drive to turn in all available metal items to the national scrap pile. Metal items to be considered in this drive include fences, railings, gates, grillwork and similar articles.

* * *

In Boston, Mass., the New England regional office of the War Production Board gave its support to a suggestion of Boston's fire commissioner, William A. Reilly, that buildings more than 75 years old be demolished unless owners could prove remodeling would strengthen the structure.

Fire Commissioner Reilly made the suggestion after six firemen were killed and more than a score injured in a recent fire in a business block.

Engineers said that most of the old structures contained many pounds of materials that could be turned over to the scrap drive, and added that removal of the structures would do way with fire hazards and eyesores.

• • •

Cancel annual Colorado road engineering meet

Due to restrictions on travel and absence of many engineers who are now in the armed services, the 17th Highway Engineering Conference of the University of Colorado has been cancelled, according to C. L. Eckel, head of the department of civil engineering at the school.

The conference was scheduled for Jan. 7-8 at Boulder, Colo.

CITIZENS OF three additional states, Iowa, Oregon and West Virginia, voted overwhelmingly in the general elections on Nov. 3 to amend their state constitutions to require that all special highway taxes be spent for highway purposes. This increases to 14 the number of states having constitutional requirements of this kind.

Pan-American Railway gets a new link

With the official opening, on Nov. 10, of a bridge over the Suchiate River, the boundary between Mexico and Guatemala (*ENR*, Nov. 12, p. 679), there was completed a new link in the Pan-American Railway which is important for both commercial and military purposes. This bridge is on a line about three miles long, built by the National Railways of Mexico from Suchiate, the southernmost point on the system, to Ayutla, Guatemala, the northern terminal of the International Railways of Central America, whose system extends through Guatemala and San Salvador to the borders of Honduras and Nicaragua, with barge service to a Nicaraguan railway. Furthermore, by the laying of a solid floor across the bridge, as is proposed, it will form a link in the Pan-American Highway, thus completing a new all-land rail and road route between the United States and the countries of Central and South America.

At Suchiate, the river is 820 ft. wide, and the bridge is a trestle 1,150 ft. long, built of creosoted piles and timber. Since the Mexican railway system is of standard gage, while the International system's lines have a gage of 3 ft., there will still be a transfer between cars. But the freight will be handled directly across a transfer shed and platform 300 ft. long, having a standard-gage track on one side and a narrow-gage track on the other side. This will eliminate the former three-mile transfer between the stations by means of a combination of ox-carts and small barges of one-ton capacity, with its liability of delays, damage and losses.

In view of the increasing traffic between the United States and the countries of Central and South America, together with the hazards of coastal navigation and the lack of ships during the war, this inconspicuous bridge is a link of considerable international importance.

• • •

Big improvement program for Missouri Pacific R.R.

The Missouri Pacific Railroad last week was granted permission at St. Louis, Mo., to spend more than $4,000,000 for new equipment and improvements to its lines. Federal Judge George H. Moore signed the railroad's petition, after road officials had explained that heavy war traffic necessitated the expenditure.

In addition to purchase of rolling stock and prime movers, the program will include extensions and construction of sidings in Missouri and Arkansas; construction of a steel water tank, coal chute and water well at Swifton, Ark.; installation of 60 miles of centralized traffic control between Knobel and Dodd Junction, Ark.; and nearly 47 miles of automatic signal devices which will be installed between Kenefick and Beaumont, Texas.

• • •

New air protection code for federal buildings

Two new emergency codes have just been issued in printed form by the Public Buildings Administration of the Federal Works Agency. The larger, entitled "Air Raid Protection Code for Federal Buildings and Their Contents" is a document of over 170 pages with numerous illustrations that will be found of value to those charged with developing air-raid protection for all kinds of public buildings, large office buildings or commercial buildings. A considerable part of the pamphlet is given over to blackout requirements and includes drawings of light-locks for entrances and truck loading platforms. Other subjects covered are organization and training service units, selection of shelter areas, protection of building contents and protection of utilities.

The second pamphlet contains a "Code for Protection of Federal Buildings and Their Contents from Subversive Hostile Acts". It is an amplification of instructions for the organization of service units contained in the larger pamphlet. In it, federal buildings are divided into four "functional priorities": (1) War Activities—Principal; (II) War Activities—Supporting; (III) War Activities—Subordinate, and (IV) Other Activities. Protective measures for each priority are set up.

Copies of both publications can be obtained from the Superintendent of Documents, Washington, D. C., at a cost of 20c. for the air-raid protection code and 10c. for the code for protection from subversive acts.

• • •

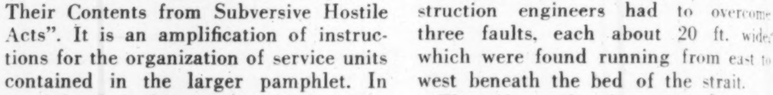
Report Jap railway tunnel open for service

Culminating six years of work, and the expenditure of about $24,000,000 the first passenger train recently ran through the new Kwas-Mon Tunnel, connecting Japan's main island of Honshu with the adjacent island of Kyushu, according to a Tokyo broadcast recorded in the United States.

Construction began Sept. 19, 1937 (*ENR*, Jan. 21, 1937, p. 107), and in all more than 3,000,000 workers were used on the two-mile tunnel. The bore links the railway systems of the two islands, which previously were broken by a ferry service across the Kwammon Strait.

It was originally planned to build a double-track tunnel, but financial difficulties intervened. The single-track tunnel finally constructed will permit the passage of about 60 trains a day. Construction engineers had to overcome three faults, each about 20 ft. wide, which were found running from east to west beneath the bed of the strait.

Through railroad service between Tokyo and Kagoshima, an important center on Kyushu Island, now takes a minimum of 31 hr. 15 min., as compared to 40 hr. before the tunnel was opened.



The survey "party" of the future, providing present man-power demands are stepped up, is here visualized by Adolph H. Anderson, draftsman for the U. S. Engineers, in the Seattle district office. At work in the view of a somewhat startled cow, Mr. Anderson's "party" is equipped with all necessary instruments and tools, and even with super-long arms to enable him to take proper readings on the tape.

OBITUARY

Samuel E. Duff, 75, consulting engineer for more than 50 years in Pittsburgh, died Nov. 15. A graduate in 1886 of the Western University of Pennsylvania, now the University of Pittsburgh, he designed and built many industrial plants throughout Pennsylvania and the Midwest.

Jacob Schaffner, 62, formerly an engineer of Rochester, N. Y., died at Clearwater, Fla., recently.

Joseph Millard Butterworth, 50, an engineer for the J. G. Wilson Corp. of New York, died Nov. 19 at a Baltimore, Md. hospital.

A. Bruce Silverthorn, 54, superintendent of construction at the Glenville naval supply depot, died recently at his home in Schenectady, N. Y. M. Silverthorn was general superintendent of construction for John W. Cowper Co., Inc., of Buffalo, and Senior & Palmer, Inc., of New York City. He had been employed by the Cowper Co. about 15 years.

Ira W. Sylvester, city engineer of Alexandria, La., for many years, died Nov. 7.

Julian E. Hughes, 60, former commissioner of public works for Union, S. C., died there Nov. 11.

Charles E. Birge, 72, retired architect who designed the Bankers Trust Co. building at 57th St. and Madison Ave., New York, and many other office buildings, died Nov. 27 at his home in Scarsdale, N. Y.

Antone Petersen, of the San Francisco general contracting firm of Antone Petersen & Sons, died in San Francisco Nov. 17.

Walter S. Higgins, 59, building contractor of Lake George, N. Y., died there Nov. 18. A contractor for 30 years, Mr. Higgins was superintendent of construction on Lake George's new sewer system, built in the period 1935 to 1937.

Clyde N. Friz, 75, architect who designed a number of Baltimore buildings including the Enoch Pratt Library, died Nov. 22.

Henry E. Hood, 71, civil engineer of York, S. C., died Nov. 10. A lifelong resident of York County, he had at one time served a term as magistrate of Bullocks Creek and Broad River townships.

Charles A. Jerome, 69, civil engineer of Gates Mills, Ohio, died there Nov. 14.

FWA approves plans for Seabee camp water supply

Plans for a 2,500,000-gallon storage reservoir and other facilities to assure an adequate water supply for naval construction battalions stationed at Camp Peary, in the Williamsburg, Va. area (*ENR*, October 22, page 535) have been announced by Kenneth Markwell, regional FWA director.

The proposed facilities, Mr. Markwell said, supplement a 31-mile pipeline that the FWA is constructing from the Chickahominy River to the reservoirs serving Newport News and other localities. Newport News and other surrounding localities.

Former highway research chief heads radio chain

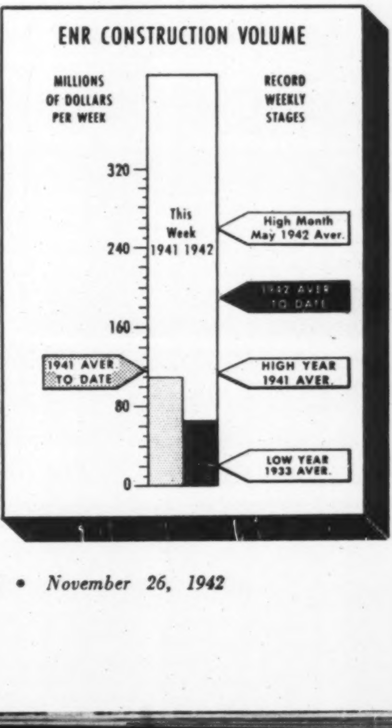
Miller McClintock, formerly director of the Bureau of Street Traffic Research at Yale University, and more lately executive director of the Advertising Council of New York, has been appointed as the first paid president and chief executive of the Mutual Broadcasting System.

The DeQueen, Ark., municipal waterworks has reverted to control of the city after the resignation of the directors of the waterworks district after announcement that all bonds and obligations have been paid in full.

CONTRACTS AND CAPITAL

Engineering Construction volume for the short week due to the Thanksgiving Day holiday totals $65,929,000. This compares with $100,060,000 reported for the preceding week, and $110,331,000 for the full week last year. Federal work accounts for $53,507,000, or 81 percent of the week's volume; $8,689,000 is for private construction; and $3,733,000 is for state and municipal work.

The week's total brings 1942 construction to $8,932,207,000, an increase of 60 percent over the volume for the 48-week period last year, and already 52 percent above the $5,868,699,000 reported for the entire year 1941. Private construction, $542,544,000, is 52 percent below the period last year, but public work, $8,389,663,000 is 88 percent higher. The 137 percent increase in federal work is responsible for the public gain over last year, inasmuch as state and municipal work is 57 percent lower.



In the classified construction groups, commercial building and large-scale private housing exceeds its volume of a week ago. This is the only gain recorded, either over last week, or the 1941 week.

New capital for construction purposes for the week totals $2,830,000, and compares with the $23,928,000 for the week last year. The current week's new financing is made up of $440,000 in state and municipal bond sales, and $2,390,000 in corporate security issues.

New construction financing for the year to date, $10,204,255,000, tops the $6,282,297,000 for the corresponding 48-week period in 1941 by 63 percent.

CONTRACTS

(Thousands of dollars)

	Week Ending Nov. 27 1941	Nov. 19 1942	Nov. 26 1942
Federal	$ 63,648	$ 90,897	$ 53,507
State & Municipal	21,099	3,192	3,733
Total public...	$ 84,747	$ 94,089	$ 57,240
Total private..	25,584	5,971	8,689
TOTALS	$110,331	$100,060	$ 65,929

Cumulative
1942......(48 weeks).....$8,932,207
1941......(48 weeks).....$5,599,010

Note: Minimum size projects included are: Waterworks and waterways projects, $15,000; other public works, $25,000; industrial buildings, $40,000; other buildings, $150,000.

NEW PRODUCTIVE CAPITAL

	Cumulative 1941 48 weeks	1942 48 weeks
NON-FEDERAL ...	$1,331,179	$625,069
Corp. Securities..	352,869	177,379
State & Mun....	399,569	208,535
U.S.H.A. loans...	30,399	....
R.E.A. loans.....	100,500	....
R.F.C. loans.....	284,842	156,455
Fed. Aid—Highways	163,000	82,700
FEDERAL	$4,951,118	$9,579,186
TOTAL CAPITAL..	$6,282,297	$10,204,255

ENR INDEX NUMBERS

Index Base = 100		1913	1926
Construction Cost...	Nov. '42	283.64	136.35
Building Cost......	Nov. '42	226.58	122.48
Volume	Oct. '42	421	185

FHA MORTGAGES

	Week Ending Nov. 22 1941	Nov. 14 1942	Nov. 21 1942
Selected for appraisal			
Title II...	$16,808	$4,019	$5,097*
Title VI...	$6,036	$11,227	$12,309*

*Subject to revision.

CONSTRUCTION REPORTS

Compiled by Business News Department—Engineering News-Record, 330 W. 42nd St., New York
ELSIE EAVES, Manager *SCOTT McLEOD, Statistician*
(Daily service also available—Write for details)

Location of ENR Correspondents

Symbols and Abbreviations Include

† **Federal Government**
★ Project of $500,000 or over
ENR **Engineering News-Record**
CD Engineering News-Record Construction Daily
A-E-M Architect — **Engineer-Management type** of contract.

Projects—By Size

Construction projects here reported cover the United States and Canada, are of these minimum sizes or larger; water supply, earthwork, waterworks, $15,000; other public works, $25,000; industrial buildings, $40,000; other buildings, $150,000.

Classes of Construction

(Named in order of Listing)

Water Supply
Sewers, Waste Disposal
Bridges, Grade Cross'gs
Streets & Roads
Earthwork, Waterways
Unclassified
Latin America
Public Buildings
Commercial Buildings
Industrial Buildings

Stages Reported

PROPOSED: (except Streets & Roads):

BIDS ASKED (new announcements only. For full calendar, see also preceding issues of ENR);

LOW BIDDERS: On jobs below $500,000 value all low bidder news will be the final reports published on the projects involved except where award is not made to the low bidder. In this case, a supplementary contract award report will be published.

CONTRACTS AWARDED: Except awards to low bidders previously reported in low bidder stage.

Dates shown are of issue in which last previous report was published.

Note: To comply with censorship requirements, addresses on some reports are being generalized. Data which would reveal the purpose of the improvements and the size are withheld. The name of contractor and general area are reported.

WATER SUPPLY

PROPOSED WORK

†**Me., Kittery**—City, Water Dpt., WW exten., watermain, chlorination facilities, Me-17-109. Over $15,000. **FWA.** Whitman & Howard, 89 Broad St., Boston, Mass., engrs. CD 6/2—ENR 6/4.

†**Maryland**—Washington Suburban Sanitary Comn., Hamilton St., Hyattsville, watermains, Md. 18-174. Prince Georges Co. $198,000. **FWA.** H. R. Hall, Hyattsville, engr.

★†**Miss., Biloxi** — Federal Works Agency, Candler Bldg., Atlanta, Ga., WW sys. $870,000.

★†**Miss., Pascagoula**—Federal Works Agency, Candler Bldg., Atlanta, Ga., WW sys. $508,000.

O., Middletown—Watermains, sanitary and storm sewers, various sections. $78,000.

R. I., North Kingston—Town, Waterworks Comn., plans nearing completion 1½ mi. transite pipeline connecting new supply Oak Hill Rd., pump. station. Over $15,000. Jenks & Ballou, 2600 Industrial Trust Bldg., Providence, engrs. CD 10/12—ENR 10/15.

Tenn., Kingsport—WW imprvs. Wideman & Singleton, Citizens & Savings Bank **Bldg.**, Atlanta, Ga., engrs.

★†**Va., Williamsburg** — Federal Works Agency, 606 State Planters Bank Bldg., Richmond, 2,500,000 gal. storage reservoir, Waller Mill Dam, near Magruder; low-head dam across Chickahominy River, just below intake of pump. sta. for pipe line now under construction to create smaller reservoir, and installing subsidiary pipelines, appurtenances, $1,081,000, Newsom & Aldrich, 500 5 Ave., New York, N. Y., engrs.

BIDS ASKED

Bids Asked in December

†**Conn., New Britain**—City, Dept. P. Wks., WW, 4 wells near Wolcott Reservoir, diesel pumper, Southington Valley, White Bridge area. $283,000. **FWA.** Geo. Molleur, City Hall, engr. CD 11/4—ENR 11/11.

Bids Asked December 1

N. Y., Claverack—At office Dpt. Social Welfare, 112 State St., Albany, driven well at New York State Training School for Girls. $1,150.

Bids Asked December 8

†**Md., Hyattsville** — Washington Suburban Sanitary Comn., at office Commission, Hamilton St., Contr. 1, **FWA** Proj. **Md.** 18-175, 9,335 ft. 6- to 14-in. c.i. watermains; adv. ENR 11/26.

Bids Asked December 4

†**Mo., Wentzville**—City, c/o Mrs. Eugenie K. Buescher, clk., WW imprvs., Sect. 1, piping connections to existing sys., Sect. 2, pump house. **FWA.** E. C. Meyers, 7545 Ellis St., Maplewood, St. Louis Co., engr.

Bids Asked December 9

†**Md., Glen Burnie**—Anne Arundel County Sanitary Comn., supplemental water supply line across head of Spa Creek from Annapolis to Eastport. $18,000. **FWA.**

Bids Asked About January 1

★†**District of Columbia**—U. S. Eng., McMillan Station, Dalecarlia pump. sta., $918,000, gravity main Dalecarlia, $671,000, Fort Reno reservoir, $500,000.

LOW BIDDERS

†**California**—U. S. Eng., Wright Bldg., Sacramento, water and fuel storage sys., Yuba Co., from Independent Iron Works, Ltd., 821 Pine St., Oakland, under **$50,000.**

Tenn., Milan—J. M. Creswell, mayor, Nov. 12. 500,000 gal. concrete ground-level water reservoir, c.i. pipe, etc., from Volz Constr. Co., Ripley, **$31,450.** CD 11/4.

CONTRACTS AWARDED

†**Alabama**—U. S. Eng., U. S. Courthouse & Customhouse, Mobile, water utilities, water distr., wooden elevated tank, Pickens Co., to Blount-Holt Constr. Co., Montgomery, **$50,000-$100,000.**

†**Ala., Gadsden**—City, filter plant exten., to Norton & Hallmark Constr. Co., Gadsden. Est. **$100,000. FWA.** P. Hoffebert, Gadsden, consult. archt. Wiedeman & Singleton, Candler Bldg., Atlanta, Ga., consult. engrs. T. Watford, city engr.

†**Delaware**—U. S. Eng., 6 and Walnut Sts., Phila., Pa., water distr. sys. and ground storage reservoir, Kent Co., to William D. Shellady, Inc., 1015 Lancaster Ave., Wilmington, **$50,000-$100,000.**

†**Georgia**—U. S. Eng., Post Office Bldg., Savannah, water distr. sys., Chatham Co., to Nichols Contg. Co., 1190 Caroline St. N.E., Atlanta, under **$50,000.**

Md., Annapolis—Annapolis Water Co., Annapolis, reclaiming watermains, own forces. Bids 11/14 rejected.

Mass., Fitchburg — P. Wks. Comr., water sys., several chlorination bldgs., to Littlehale & Fisher, 49 Osgood St., unit cost **$2,540** each. Total est. $15,000. Bids 11/10. CD 11/5.

†**Texas**—U. S. Eng., 231 W. Main St., Denison, drilling, casing, developing deep test water well, facilities, Smith Co., to Layne-Texas Co. Ltd., 3901 Elm St., Dallas, under **$50,000.** CD 11/10—ENR 11/12.

SEWERS WASTE DISPOSAL

PROPOSED WORK

Calif., Salinas—F. E. Heple, city clk., rejected bids Nov. 2, intercepting outfall sewer from Alisal to sewer plant. CD 11/7—ENR 11/12, under LB.

†**Conn., Bridgeport**—City, Dpt. P. Wks., bids soon sanitary sewer, Broadbridge School, Conn 6-107. $30,000. **FWA.** H. L. Rowland, City Hall, engr.

†**Okla., Muskogee**—R. Tucket, city mgr., sewage disposal plant, Okla. 34-140. $197,310. **FWA** Project cancelled. Morgan & Collins, 416 Court St., engrs. CD 6/4—ENR 6/11.

†**Tex., Wichita Falls**—J. Bryan Miller, city mgr., rejected bids Oct. 15, sanitary sewerage sys. imprvs., and addnl. WW imprvs. Tex. 41-167. **FWA.** Project abandoned. F. M. Rugeley, Wichita Falls, engr. CD [illegible]—ENR 10/29 under LB.

†**Wash., Tacoma**—City, 15 and 21 in. [illegible] sewer, E. 43 and T Sts. to E. 4[illegible] and T Sts. **FWA** docket 45-223. $59,500. [illegible] D. Forsberg, City Hall, engr.

†**Miss., Centerville**—City, O. Carroll, mayor, sewerage and WW sys. $120,000. **FWA.** Wesley Brown, city engr. CD [illegible]—ENR [illegible]

BIDS ASKED

†**Conn., Fairfield**—Bridgeport Housing Auth., 252 Hallett St., **Bridgeport**, sewers and disposal sys., **Knapps Hy.** for NHA. $100,000. **Plans** deposit **$25 first set** and $5 each additional one. **Whitman** & Howard, 89 Broad St., Boston, **Mass.** engrs.

LOW BIDDERS

†**Md., Hyattsville** — Washington Suburban Sanitary Comn., Hamilton St., Nov. 13, [illegible] ft. **24** in. vitr. **sewers**, Contr. 162-S, from Leo Butler Co., 8416 Georgia Ave., Silver Spring, **$98,029.** CD 11/9—ENR 11/12.

CONTRACTS AWARDED

†**California** — Industrial Company, various sized sewers, Contra Costa Co., to W. J. Tobin, 5708 Glenbrook Dr., Oakland and McGuire & Hester, 796 66 Ave., Oakland. Est. **$90,000-$100,000.** Federally financed. CD 10/29—ENR 11/5.

†**Georgia**—U. S. Eng., Post Office Bldg., Savannah, sanitary sewerage sys., to S. [illegible] Alexander & Scott Constr. Co., Thomasville, under **$50,000;** sewage disposal sys. to Espy Paving & Constr. Co., 108 **E.** Bay St., Savannah, under **$50,000,** both Chatham Co.

†**Ga., Port Wentworth** — Federal Works Agency, Candler Bldg., Atlanta, sanitary sewerage sys., to Ivy **H.** Smith Co., 1535 San Marco Blvd. S., Jacksonville, **Fla.**, **$37,274.**

†**Ga., Savannah**—Federal Works Agency, Candler Bldg., Atlanta, **sanitary** and outfall sewerage **sys.**, to **Espy** Paving & Constr. Co., 108 E. Bay St, under **$50,000.**

†**Kansas**—U. S. Eng., 416 Wright Bldg., Tulsa, Okla., sewage **disposal** plant, Pratt Co., to C. M. **Dunning, 12 N.W.** 8 St., Oklahoma City, Okla., **$50,000-$100,000.**

†**Kansas**—U. S. Eng., 10 E. 17 St., Kansas City, Mo., **sewage disposal** plant, Geary Co., to Green-Casson-Cekal & **Milligan**, Manhattan. Howard, Needles, Tammen & Bergendorff, [illegible] Orear-Leslie Bldg., Kansas City, Mo., engrs. Bids 11/10. CD 10/6—ENR 10/8.

†**Md., Baltimore**—Federal Works Agency, **606 State Planters Bank Bldg.**, Richmond, Va., interceptor sewer line, Curtis Bay area, Baltimore Co., to Square Constr. Co., 115 S. Haven St., Baltimore, **$256,550.** Bids [illegible] CD 11/9.

†**Massachusetts**—U. S. Eng., Park Square Bldg., Boston, sewerage **sys.**, No. 175-43-NE[illegible] 148, Plymouth Co., to **D. Zanni**, 23 Lakeview Ave., Reading. Est. over **$25,000.** CD [illegible]—ENR 11/19.

Mo., Kansas City—A. Everham, dir. P. Wks., sanitary sewer, to J. A. Tobin Constr. Co., 3700 Rainbow St., Kansas City, Kan. **$202,356.** CD 11/2—ENR 11/5 under LB.

†**New Mexico**—U. S. Eng., Albuquerque, sanitary sewers, De Baca Co., to R. J. [illegible] Constr. Co., Crissey Field, San Francisco, Calif., **$100,000-$500,000.**

O., Kent—Storm sewer from W. Main to Stow Sts., to **National Constr. Co.**, 3919 Tyndall Rd., University **Heights**, Cleveland. **$28,000.** Bids 10/14. J. G. **Osborne**, city engr.

†**Tenn., Jackson**—City, c/o A. B. Foust, mayor, Jackson, **Madison** Co., c/o Judge A. Wilde, Jackson, drain in primary field, to C. F. Wheeler Co., **9537 N.E.** 2 Ave., Miami, Fla. **$30,000.** CAA. Hart, Freeland & Roberts, 34th Natl. Bank Bldg., **Nashville**, engrs.

†**Texas**—U. S. Eng., Albuquerque, N. M., sewer line, El Paso Co., to R. H. Fulton & Co., Box 1542, Lubbock. **$50,000-$100,000.** Bids about 10/17. CD 10/15—ENR 10/15.

†**Washington**—U. S. Eng., 810 3 Ave., Seattle, drainage, sewers, Clallam Co., to Rumsey & Co., 3821 Airport Way, Seattle, **$50,000-$100,000.**

Man., Winnipeg—Dpt. National Defense for Air, Ottawa, Ont., sewer and watermains etc., A. O. School, to Henry Borger & Son Ltd., 194 Osborne St., **$50,000.**

SEWERS, etc. (Contracts Awarded, Cont'd.)

N. B., Moncton—3½ mi. 15 in. terra cotta trunk sewer from housing area at Lakeburn to Petitcodiac River, to Dexter Constr. Co., Ltd., Station St., **Fairville, about $90,000.**

BRIDGES. GRADE CROSSINGS

PROPOSED WORK

Iowa — State Hy. Comn., Ames, rejected bids Nov. 17, 2 concrete box culvert extens., Adams Co. CD 11/6—ENR 11/12.

BIDS ASKED

Bids Asked December 1

Iowa—State Hy. Comn., Ames, 2 concrete box culvert extens., Iowa 155, Sect. 8, Nodaway Twp., Adams Co. F. R. White, Ames, ch. engr.

LOW BIDDERS

Calif., San Francisco—Dpt. P. Wks., City Hall, Nov. 18, **repairing 3 St. bridge over** Channel **Waterway, from M. J. Lynch, Barneveld and Oakdale Aves., $37,900.** Est. $29,027. CD 11/4.

CONTRACTS AWARDED

†**Texas—U. S. Eng., Fort Sam Houston,** low water **crossings (bridges), Brown Co., to H.** Page, **Fiskville Rd., Austin, under $100,000.**

STREETS AND ROADS

BIDS ASKED

Bids Asked December 1

Iowa — State **Hy.** Comn., Ames, grading 0.379 mi. channel change P-628, Monona Co. F. R. White, **Ames,** ch. engr.

Bids Asked December 2

Louisiana—Dpt. **Hys.**, Baton Rouge, concrete paving, etc., 6.207 mi. Filore-Dogline Hy., Bossier and **Webster Parishes, plans deposit $9 without or $22 with cross section sheets;** 12.521 mi. Gardner-Alexandria Hy., Rapides **Parish, plans deposit $10.50 without or $36 with cross section sheets.** Readvertisement. CD 8/5—ENR 8/13.

Bids Asked

California — State Div. Hys., Pub. Wks. Bldg., **Sacramento, rejected bids** Nov. 4, imprv. 2.4 mi. **road, Mendocino** Co. CD 11/1—ENR 11/12, **under LB.**

†**R. I., Westerley**—Office G. R. Berryman, dist. engr., **Pub. Bldgs.** Admin., **1301 Custom** House, Boston, **Mass.,** exten. driveway and miscellaneous repairs at U. S. Post Office, PB-D E-1.

LOW BIDDERS

Idaho—A. C. Merritt, comr. P. Wks., Boise, Nov. 13, imprv. **6.086 mi. Ada Co., from Quinn-**Robbins Constr. Co., Inc., S. 16 St., Boise, **$228,415. T. M. Hally, State House, Boise,** engr. CD 11/5.

Iowa—State Hy. Comn., Ames, Nov. 17, imprv. 0.291 mi. Clinton Co., from F. A. Moser, Farmersburg, **$32,940.** CD 11/6—ENR 11/12.

Md., Upper Marlboro—Comrs. Prince George Co., Nov. 5, **street paving, storm drains, Rogers Heights, from Contee Sand & Gravel** Co., Contee, **Laurel, $85,059.** CD 10/20.

New Jersey—S. Miller, Jr., comr. State Hy. Dpt., **Trenton, Nov. 16,** imprv. 2.058 mi. **Route 6, Camden Co., from Francis A. Canuso** & Son, **804 S. 12 St., Phila., Pa., $308,770.** CD 11/5—**ENR 11/12.**

★**Texas**—State Hy. Eng., Austin, Nov. 17, imprv. 1.023 mi. Wilson Co., from H. B. Zachry, **Laredo, $43,031,** est. $40,000***15.563 mi. **Kleberg and Nueces Co.,** from Heldenfels Bros., **Rockport, $290,232,** est. $250,000*** 5.919 mi. **Angelina and Polk Counties,** from Harrison **Eng. & Const. Co., Fairfax Bldg.,** Kansas City, **Mo., $177,446,** est. $200,000*** 7.069 mi. **Dallas Co.,** from H. L. Campbell, 1205 6 Ave., **Fort Worth, $105,112,** est. $120,000. CD 11/16—ENR 11/12.

Washington—B. Bantz, dir. State Hy. Dpt., Olympia, Nov. 10, imprv. 1 mi. Pacific Co., from T. W. **Thomas,** Imperial Hotel, Portland, Ore., **$42,886;** 2.5 mi. Clark Co., from H. B. Klineline, Route 4, Box 896, Vancouver, **$34,128.** CD 10/27—ENR 10/29.

Washington—B. Bantz, dir. State Hy. Dpt., Olympia, Nov. 17, imprvs., Okanogan Co., from F. R. Hewett, 420 22 St., Spokane, **$337,020.** Rejected bid imprv. Pacific Hy., Pierce Co. CD 11/4.

CONTRACTS AWARDED

★**California** — State Dpt. Hys., Pub. Wks. Bldg., Sacramento, imprv. 13 mi. road, Santa **Barbara Co., to Fredrickson & Watson** Constr., **873 81 Ave., Oakland, and Fredrickson Bros., 1259 65 St., Emeryville, $701,495.** Bids 10/21, awarded 11/18. CD 10/26—ENR 10/29, under LB.

†**California** — Pub. Roads Admin., Phelan Bldg., San Francisco, 15 mi. Last Chance Timber Access road, Plumas Co., day labor under supervision U. S. Forest Service, Phelan Bldg., San Francisco, **$130,000.**

†**Delaware**—U. S. Eng., 6 and Walnut Sts., Phila., Pa., construction and completion roads, walks, grading, drainage and miscellaneous items, New Castle Co., to Seaboard Constr. Co., Inc., 19 Kisco Ave., Mt. Kisco, N. Y., **$100,000-$500,000.**

†**Maryland**—U. S. Eng., Standard Oil Bldg., Baltimore, construction, completion road imprvs., Harford Co., to H. R. Miller Co., Lancaster, Pa., **$50,000-$100,000.**

Ohio—State Hy. Dpt., Columbus, imprv. 3.75 mi. Darke Co., to Manix Bros., R.R. 1, Greenville **$178,832,** est. $179,400; road, Coshocton Co., to Frantz Bros., Box 27, Sidney, **$60,888,** est. $62,500. Bids 11/10. Received no bids Nov. 10, roads Trumbull and Montgomery Counties. CD 10/30—ENR 11/5.

†**Ohio**—U. S. **Eng.,** Chesapeake & Ohio Bldg., Huntington, W. Va., roads, grading for railroad bed, Guernsey Co., to Adams Bros. Contg. Co., 112 Muskingum Ave., Zanesville, and Bellefontaine Development Co., 212 W. Auburn Ave., Bellefontaine.

Tex., Brownwood—Asphalt paving 200 city blocks, **WPA.** $245,000.

★**Utah**—State Road Comn., Salt Lake City, imprv. 2.176 mi. Davis Co., to Enoch Chytraus, 1000 Yale Ave., Salt Lake City, **$245,837;** imprvs., Tooele Co., to Reynolds-Ely Constr. Co., Springville, **$369,200.** CD 10/30.

Que., Montreal—Dpt. National Defense, Ottawa, Ont., grading, surfacing, etc., R.C.O.C. Depot, near here, to Raymond McDonell & Co., **Ltd.,** 2020 Union Ave., **$120,000.**

Ont., Camp Borden—Dpt. Natl. Defense, Ottawa, concrete pavement, Area E-8, Army Camp, to Brennan Paving Co., Ltd., 400 Gage Ave. F., Hamilton, **$90,000.**

Ont., Fingal and **Aylmer**—Dpt. Natl. Defense for Air, Ottawa, resurfacing at Fingal No. 4 Bombing & Gunnery School also at Aylmer S.F.T. School, to Towland Constr. Co., Ltd., 294 Dunday St., London, **$45,000.**

Quebec—Provincial Govt., Quebec City, bituminous paving, St. Etienne Les Gres, day labor. **$25,000.** Dpt. P. Wks., Quebec City, engrs.

EARTHWORK, WATERWAYS

PROPOSED WORK

†**California**— U. S. Eng., 751 S. Figueroa St., Los Angeles, dredging harbor, Los Angeles Co., to Western Dredging & Constr. Co., box 315, Newport Beach., over **$100,000.** Awarded 11/10.

BIDS ASKED

Bids Asked November 30

New Jersey—Bd. Commerce & Navigation, 1060 Broad St., Newark, repairing stone, steel core wall jetty by stone placement in Atlantic Ocean, Park Pl., Bradley Beach, Monmouth Co. C. W. Staniford, 1060 Broad St., Newark, engr.

Tex., Houston—R. J. Putney, engr., c/o Courthouse, excavating for drainage ditch (dragline), for Harris Co. Drainage Dist. 11, Harris Co., c/o Judge. Over $15,000.

UNCLASSIFIED

PROPOSED WORK

†**Calif., Vallejo** and **San Diego**—IMPROVEMENTS—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash., D. C., survey services by Madigan-Hyland Co., Hinsdale, N. H., imprvs., NOY 5888.

†**New Jersey**—IMPROVEMENTS—U. S. Eng., 6 and Walnut Sts., Phila., Pa., rejected bids Nov. 5, imprvs., paving, drainage, etc., Cape May Co. CD 10/29.

★†**Ohio**—IMPROVEMENTS — Civil Aeronautics Admin., 14 St. between E St. and Constitution Ave. N.W., Wash., D. C., imprvs., Muskingum Co. $868,000.

★†**Ohio** — IMPROVEMENTS — U. S. Eng., U. S. Post Office & Court House, Cincinnati, imprvs., Franklin Co. $6,000,000. CAA approved project.

★†**O., Canton** — IMPROVEMENTS — City, imprvs. $2,000,000. CAA. J. A. Shisler, city engr.

†**South Carolina**—IMPROVEMENTS — U. S. Eng., 33 Customhouse, Charleston, indefinitely postponed construction imprvs., Charleston Co. CD 9/17—ENR 9/24.

†**South Carolina** — IMPROVEMENTS—U. S. Eng., 33 Customhouse, Charleston, cancelled imprvs., clearing, grubbing, grading, drainage, paving, etc., Darlington Co.

★**Tenn., Nashville** — IMPROVEMENTS — City, c/o Thos. L. Cummins, mayor, imprvs. $2,000,000.

†**Texas**—IMPROVEMENTS—U. S. Eng., 25 St. and Avenue F, Galveston, will not take bids imprvs., Brazos Co. $75,000. CD 11/12—ENR 11/19 under BA.

†**Texas**—IMPROVEMENTS—U. S. Eng., 25 St. and Avenue F, Galveston, cancelled construction imprvs., Brazos Co. No bids taken Nov. 17. CD 11/12.

†**Va., Gravelly Point**—SEEDING, etc.—Pub. Bldgs. Admin., North Interior Bldg., Wash., D. C., rejected bids Nov. 4, seeding, planting, etc. at Federal Office Bldg. CD 11/2.

BIDS ASKED

Bids Asked December 9

Calif., San Francisco—CRIB WALL, etc.—Dpt. P. Wks., City Hall, wood crib wall, drainage structures Bernal Ave. south of Richland Ave. bridge. $40,000. J. J. Casey, city engr.

Bids Asked

†**Kansas**—LIGHTING EQUIPMENT—U. S. Eng., 601 Davidson Bldg., **Kansas** City, Mo., field lighting equip., Saline Co. $75,000. Burns & McDonnell, 107 W. Linwood St., **Kansas** City, Mo., engrs.

†**Maine**—CONSTRUCTION—U. S. Eng., Park Square Bldg., Boston, **Mass.** (selected list bidders), concrete construction work, No. 175-43-NEG 150, Cumberland Co.

†**New Mexico** — IMPROVEMENTS — U. S. Eng., Albuquerque, imprvs., parking, paving, etc., Bernalillo Co. $100,000 or more. Plans deposit $75.

Tex., Midway—OIL WELL—Phillips Petroleum Co., Sinton, drilling, casing, developing 10,000 ft. deep test oil well, near here. $75,000.

LOW BIDDERS

†**California**—IMPROVEMENTS—U. S. Eng., Riverside, Nov. 16, imprvs., asphaltic concrete roads, parking areas, Sol. 293, Riverside Co., from Calowell Constr. Co., 1835 E. Wardlow Rd., Long Beach, under **$500,000.**

O., Cleveland—IMPROVEMENTS—F. Foy, city purch. agt., City Hall, imprvs., from Ajax Petroleum Products, Hippodrome Annex, Cleveland, **$40,962;** sewer in Clark and Holmden Aves., from Sylvester & Di Paolo, 1424 Lakeview Rd., **$37,781.** J. Wenrick, City Hall, engr.

CONTRACTS AWARDED

†**Alabama**—IMPROVEMENTS—U. S. Eng., U. S. Courthouse & Customhouse, Mobile, imprvs., Inv. 569-43-294, Montgomery Co., to Bear Lumber Co., 400 Lee St., Montgomery. Est. **$250,000.**

★†**Alabama**—IMPROVEMENTS—U. S. Eng., U. S. Courthouse & Customhouse, Mobile, imprvs., Mobile Co., to Foster & Creighton Co., Amer. Natl. Bank Bldg., Nashville, Tenn., **$500,000-$1,000,000.**

†**Alabama**—IMPROVEMENTS—U. S. Eng., U. S. Courthouse & Customhouse, Mobile, imprvs., Houston Co., to H. H. Brown, Dothan.

†**Alabama** — OVERHEAD ELECTRICAL DISTRIBUTION SYSTEM—U. S. Eng., U. S. Courthouse & Customhouse, Mobile, overhead electrical distr. sys., Pickens Co., to Stuart C. Irby, 815 S. State St., Jackson, Miss., under **$50,000.**

†**Arizona**—DUST CONTROL—U. S. Eng., 751 S. Figueroa St., Los Angeles, Calif., dust control, Mohave Co., to Morrison-Knudsen Co., 411 W. 5 St., Los Angeles, Calif., over **$100,000.** Bids 11/7. CD 10/29.

†**Arizona**—DUST PROOFING and AIR CONDITIONING—U. S. Eng., Albuquerque, N. M., dust proofing, air conditioning, link trainer bldgs., various locations, to Matthews Eng. Co., 2122 Olive St., Dallas, Tex., under **$50,000.** Bids 11/7. CD 10/29—ENR 11/5.

†**Arizona**—IMPROVEMENTS—U. S. Eng., 751 S. Figueroa St., Los Angeles, Calif., imprvs., Maricopa Co., to Arizona Constructors, Luhrs Bldg., Phoenix, under **$500,000.**

†**Arkansas**—IMPROVEMENTS—U. S. Eng., P. O. Box 97, Memphis, Tenn., imprvs., excav., drainage, to Cooper & McAdams, West Memphis, under **$50,000***** imprvs., to Murray Bros., 1414 S. Michigan St., Chicago, Ill., under **$50,000***** outside electrical distr. sys., to L. E. Myers Co., 53 W. Jackson St., Chicago, Ill., under **$50,000;** all foregoing in Lawrence Co. CD 10/30.

†**Arkansas**—IMPROVEMENTS—U. S. Eng., 300 Bway., Little Rock, imprvs., Jackson Co., to Arkansas Power & Light Co., Pine Bluff, under **$50,000.**

†**Arkansas**—IMPROVEMENTS—U. S. Eng., P. O. Box 97, Memphis, Tenn., imprvs., bldgs., sewage disposal sys., to Blauner Constr. Co., 189 W. Madison St., Chicago, Ill., under **$100,000*****interior electric wiring of bldgs., to Wm. Slater Electric Co., 134 S. 2 St., Memphis, Tenn., under **$50,000*****water distr. sys., to L. O. Brayton, Dyersburg, Tenn., under **$50,000,** all foregoing in Lawrence Co.

†**California**—NIGHT LIGHTING SYSTEM—U. S. Eng., 4792 Sepulveda Blvd., San Bernardino, night lighting sys., Sol. 907, San Bernardino Co., to Newbury Electric Co., 1038 Venice Blvd., Los Angeles, under **$50,000.**

★†**Calif., Oakland**—DRY DOCK—**Yards & Docks, Navy Dpt., 18 St. and Constitution** Ave. N.W., **Wash.,** D. C., sectional **timber** floating dry dock, NOY 5566, to **Poole & McGonigle, 6330 N.E. Halsey St., Portland, Ore., $2,235,000.** Awarded 9/30.

†**Delaware**—ELECTRICAL DISTRIBUTION SYSTEM—U. S. Eng., 6 and Walnut Sts.,

UNCLASSIFIED (Contracts Awarded, Cont'd.)

Phila., Pa., electrical distr. sys., Kent Co., to McHugh Electric Co., Inc., 211 W. 8 St., Wilmington, under **$50,000.**

†Delaware—GASOLINE FUELING SYSTEM—U. S. Eng., 6 and Walnut Sts., Phila., Pa., exten. gasoline fueling sys., New Castle Co., to Larry E. Tyree Co., Valley Stream, N. Y., under **$50,000.**

†Delaware—PAINTING—U. S. Eng., 6 and Walnut Sts., Phila., Pa., painting exterior and interior surfaces concrete block bldgs., New Castle Co., to E. L. Jones, 5 and Madison Sts., Wilmington, under **$50,000.**

†Florida — ELECTRICAL DISTRIBUTION SYSTEM—U. S. Eng., U. S. Courthouse & Customhouse, Jacksonville, electrical distr. sys., Inv. Neg-Jax 43-333, Sarasota Co., to J. R. Hine Electric Co., 376 S. County Rd., Palm Beach, under **$50,000.** Awarded 10/30.

†Florida — ELECTRICAL SYSTEM — U. S. Eng., U. S. Courthouse & Customhouse, Mobile, Ala., electrical sys., Okaloosa Co., to Stuart C. Irby Co., 815 S. State St., Jackson, Miss., under **$50,000.**

†Florida—FENCES—U. S. Eng., U. S. Courthouse & Post Office, Jacksonville, fences, Inv. Neg-DUN-43-2, Marion Co., to H. C. Sullivan, Frostproof, under **$50,000.** Awarded 11/3.

†Florida — GASOLINE STORAGE — U. S. Eng., U. S. Courthouse & Post Office, Jacksonville, gasoline storage and fueling sys., Inv. NEG-Jax-43-311, Jackson Co., to Aqua Systems, Inc., 385 Gerard Ave., New York, N. Y., under **$100,000.** Awarded 11/3.

†Florida — IMPROVEMENTS — U. S. Eng., U. S. Courthouse & Post Office, Jacksonville, imprvs., clearing, grubbing, grading, paving, Martin Co., to Bail, Horton & Associates, Jacksonville, under **$50,000.**

†Florida—SEEDING, etc.—U. S. Eng., U. S. Courthouse & Post Office, Jacksonville, seeding, soil preparation, fertilizing, Inv. Neg-Jax-43-331, Dade Co., to Kuxier Landscape Co., Miami Beach, under **$100,000.** Awarded 10/30.

†Fla., Jacksonville—POWER LINE—Federal Works Agency, F St. between 18 and 19 Sts. N.W., Wash., D. C., interconnecting power line from main municipal generating plant to western city limits, etc., for city, to Enterprise Electric Co., 4 W. Barre St., Baltimore, Md., approx. **$450,000.** Awarded 11/17.

†Georgia—ELECTRICAL DISTRIBUTION—U. S. Eng., Post Office Bldg., Savannah, electrical distr. sys., Chatham Co., to Palmetto Electrical Constr. Co., 149 Calhoun St., Charleston, S. C., under **$50,000.**

†Georgia — GASOLINE STORAGE and FUELING SYSTEM—U. S. Eng., U. S. Courthouse & Customhouse, Jacksonville, gasoline storage and fueling sys., Thomas Co., to Scott Constr. Co. and D. L. Brewton & Sons, both Thomasville, under **$50,000.** Awarded 10/29.

†Georgia — IMPROVEMENTS — U. S. Eng., U. S. Courthouse & Post Office, Jacksonville, Fla., imprvs., Inv. Neg.-V.A.-43-13, Lowndes Co., to J. N. Bray Co., Valdosta, **$50,000-$100,000.** Awarded 11/2.

†Georgia—IMPROVEMENTS—U. S. Eng., U. S. Courthouse & Customhouse, Mobile, Ala., imprvs., Liberty Co., to Jordan Contg. Co., Andrews Rd., Columbus.

†Kansas—ELECTRIC WIRING—U. S. Eng., 10 E. 17 St., Kansas City, Mo., electrical wiring, Saline Co., to Electrical Equip. & Appliance Co., Salina.

†Kansas—IMPROVEMENTS—U. S. Eng., 601 Davidson Bldg., Kansas City, Mo., imprvs., bldgs., Saline Co., to Johnson, Peterson, Busboom & Rauh, Salina. Est. **$100,000.** CD 11/18, under Public Bldgs.

†Kentucky—GAS STORAGE AND FUELING SYSTEM—U. S. Eng., Federal Bldg., Louisville, gas storage and fueling sys., Hardin Co., to Aqua System, Inc., 385 Gerard Ave., New York, N. Y., under **$50,000.**

★**Louisiana** — PIPELINE — Southern Gas Line, Inc., Monroe, pipeline river crossings, St. Landry and Rapides Parishes, to Boh Bros. Constr. Co., 2400 Cypress St., New Orleans, under **$1,000,000.** CD 11/16—ENR 11/19.

†Massachusetts — CONSTRUCTION, etc. — U. S. Eng., Park Square Bldg., Boston, construction, temporary facilities, No. 175-43-NEG 145, Middlesex Co., to Frankini Constr. Co., 30 Mystic Ave., Medford, **$50,000.** CD 11/17—ENR 11/19.

†Massachusetts—PAINTING—U. S. Eng., Park Square Bldg., Boston, painting various bldgs., No. 175-43-NEG 142, Plymouth Co., to C. Dale Garbutt, 58 Trevalley Rd., Revere. Est. under **$50,000.** Bids 11/12. CD 11/10.

★**†Mass., South Boston (Sta. Boston)**—FACILITIES—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash., D. C., addnl. facilities, NOY 4771, Supplemental Agreement 1, to Wm. M. Bailey Co., 88 Broad St., Boston, **$705,000.**

★**†Mississippi** — GASOLINE DESPENSING SYSTEM—U. S. Eng., foot of Prytania St., New Orleans, La., gasoline dispension sys., to C. W. Montague, 6520 Memphis St., New Orleans, La., under **$1,000,000.**

†Mississippi—NIGHT LIGHTING SYSTEM—U. S. Courthouse & Customhouse, Mobile, Ala., night lighting sys., Harrison Co., to P. R. Hime Electric Co., 376 S. County Rd., Palm Beach, Fla., under **$50,000.**

†Missouri — SPRINKLER SYSTEMS — U. S. Eng., 800 U. S. Court House & Custom House, St. Louis, wet pipe sprinkler sys. in 6 bldgs. and enclosed walkways connecting such bldgs. and connecting sys. to existing watermains, Inv. 1103-43-88, St. Genevieve Co., to Crowder Bros., Inc., 2212 Cole St., St. Louis. Est. under **$50,000.** Bids 11/10.

★**†New Jersey**—PIER, etc.—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash., D. C., pier, bulkhead, Hudson Co., to Merritt-Chapman & Scott Corp., 17 Battery Pl. New York, N. Y., **$1,700,000.** Industrial Company will operate.

†New Mexico—AIR CONDITIONING, etc.—U. S. Eng., Albuquerque, air conditioning and dust-proofing bldgs., various locations, to Matthews Engineering Co., 2122 Olive St., Dallas, Tex., under **$50,000.** Bids about 11/7. CD 10/29—CD 10/29.

†New York—FACILITIES—U. S. Eng., 120 Wall St., New York, increased facilities, Queens Co., to Skinner, Cook & Babcock, Inc., 60 E. 42 St., New York, **$100,000-$500,000.**

†New York—PLANTING, etc.—U. S. Eng., 120 Wall St., New York, planting trees, shrubs, Richmond Co., to Westwood Nurseries, Inc., 122 Elm St., New Rochelle, under **$50,000.**

†New York—STORAGE TANKS—U. S. Eng., 960 Ellicott Square Bldg., Buffalo, storage tanks, Niagara Co., to General American Transportation Works, Sharon, Pa., under **$50,000.**

†N. Y., Iona Island—DOCK—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash., D. C., dock, NOY 5809, to William Parrott's Sons, Hudson River Steamboat Bldg., foot Carpenter St., Newburgh, **$80,000.** Awarded 10/16. (**Correction**—contractor's address.) CD 11/5—ENR 11/12.

Ohio — IMPROVEMENTS — Industrial Company, imprvs., to F. H. McGraw Constr. Corp., Middletown. Est. **$40,000.**

†Ohio—REPAIR WORK, etc.—U. S. Eng., U. S. Post Office & Courthouse, Cincinnati, repair and rehabilitation work, Franklin Co., to Robert H. Evans & Co., 395 E. Broad St., Columbus, under **$50,000.**

†Pennsylvania — ELECTRICAL SYSTEM — U. S. Eng., 6 and Walnut Sts., Phila., electrical sys., Philadelphia Co., to Morris Newmark & Bro., 1924 Arch St., Phila., under **$50,000.**

†Pennsylvania — PLUMBING, etc. — U. S. Eng., 6 and Walnut Sts., Phila., plumbing, heating, Philadelphia Co., to Bowers Bros. Co., 2015 Sansom St., Phila., under **$50,000.**

★**†South Carolina**—IMPROVEMENTS—U. S. Eng., 33 Customhouse, Charleston, imprvs., grading, Darlington Co., to MacDougald Constr. Co., Northside Dr. N.W., Atlanta, Ga. Total est. **$780,000.**

★**†South Carolina**—IMPROVEMENTS, etc.—U. S. Eng., Florence, imprvs., paving, etc., Florence Co., to W. L. Cobb, Inc., Decatur, Ga. **$500,000-$1,000,000.**

†South Carolina—IMPROVEMENTS—U. S. Eng., Fort Jackson, imprvs., Lexington Co., to Delma Eng. Co., Columbia. **$100,000-$500,000.**

†Tennessee — FUELING SYSTEM — U. S. Eng., 306 U. S. Courthouse, Nashville, a.c. fueling sys., Montgomery Co., to Consolidated Constr. Co., 1489 Thomas St., St. Thomas St., Memphis.

★**†Tennessee** — FUELING SYSTEM — U. S. Eng., Tullahoma, addnl. a.c. fueling sys., installing three 16,000 gal. storage tanks, Coffee Co., to E. I. Tuck Plumbing Co., 809 18 Ave., Nashville, under **$1,000,000.**

†Tennessee—GASOLINE STORAGE SYSTEM—U. S. Eng., P. O. Box 97, Memphis, bulk gasoline storage sys., Lauderdale Co., to W. A. Beck, Inc., 1031 S. Big Ben Blvd., St. Louis, Mo., under **$50,000.**

†Tennessee—IMPROVEMENTS—U. S. Eng., P. O. Box 97, Memphis, imprvs., Shelby Co., to Murray Brothers, 1414 S. Michigan St., Chicago, Ill., under **$50,000.** Bids 11/5. CD 10/30.

Tenn., Columbia—TRACK REMOVAL, etc.—Louisville & Nashville R.R. Co., C. H. Blackman, ch. engr., 9 St. and Bway., Louisville, Ky., removing, rebuilding 2 mi. track, to C. G. Kershaw Contg. Co., 2212 20 Ave. S., Birmingham, Ala.

†Texas—AIR CONDITIONING, etc.—U. S. Eng., Albuquerque, N. M., air-conditioning, dust-proofing various bldgs., various locations, to Matthews Engineering Co., 2122 Olive St., Dallas, under **$50,000.** Bids about 11/7. CD 10/29.

†Texas — AIR-CONDITIONING FACILITIES, etc.—U. S. Eng., 231 W. Main St., Denison, air-conditioning facilities and electrical work, Tarrant Co., to Dallas Air-Conditioning Co., Construction Bldg., Dallas, under **$50,000.**

†Texas — ELECTRICAL DISTRIBUTION SYSTEM—U. S. Eng., 231 W. Main St., Denison outside electrical distr. sys., to Lyman Walker Electric Co., Cleburne, under **$50,000;** Bids 11/10; sewage treatment plant, and water storage, and pump. facilities and unit, to Ramey Bros., Amarillo, **$50,000-$100,000,** all foregoing in Smith Co. CD 11/9—ENR 11/12.

†Texas — FIRE ALARM SYSTEM, etc.—U. S. Eng., 231 W. Main St., Denison, fire alarm sys. and electrical facilities, Gregg Co., to City Electric Co., [illegible] N. Fitzhugh St., Dallas, under **$50,000.** CD [illegible] 24—ENR [illegible]

†Texas—GRADING, etc.—U. S. Eng., 231 W. Main St., Denison, grading, Dallas Co., to McDonald Bros., Construction Bldg., Dallas, **$50,000-$100,000.**

†Texas — IMPROVEMENTS—U. S. Eng., Albuquerque, N. M., imprvs., El Paso Co., to J. E. Morgan & Sons, [illegible] N. Campbell St., El Paso, **$100,000-$500,000.** BA about 10/22. CD 10/19.

†Texas—IMPROVEMENTS—U. S. Eng., 25 St. and Avenue F, Galveston, imprvs., bldgs., underground utilities, hard asphalt paving, drainage facilities, etc., Victoria Co., to Vivrett & Vivrett, Southland Life Bldg., Annex, Dallas, **$100,000-$500,000.** Former contract not signed. CD 11/11—ENR 11/19 under CA.

†Texas—TRAILER CAMP—Pub. Housing Auth., NHA, 1309 Electric Bldg., Fort Worth, trailer camp, underground utilities, etc., Tex. 41-314, to J. J. Fritch, Construction Bldg., Dallas, **$91,159.** Bids 11/2. Giesecke, Kuehne & Brooks, Littlefield Bldg., Austin, archts.

†Texas—UTILITY YARDS, etc.—U. S. Eng., 25 St. and Avenue F, Galveston, utility yards, etc., Walker Co., to E. Williams, 4601 Caroline St., Houston, **$50,000-$100,000.**

Tex., Beeville—OIL WELL—H. E. Dirks & Associates, Beeville, drilling, casing, developing 7,800 ft. deep test oil well, No. 1 Page Estate, near here, to H. Coquat, Milam Bldg., San Antonio, **$52,000.** Est. $70,000.

Tex., Corpus Christi—OIL WELL—Phillips Petroleum Co., Corpus Christi, drilling, casing, developing deep test oil well, near here, to Allen & Morris, Corpus Christi, **$48,000.** Est. $45,000. CD 11/11—ENR 11/19.

Tex., Snyder—OIL WELLS—Col-Tex Refining Co., Colorado City, drilling, casing, developing two 4,000 ft. deep test oil wells, to Duncan Drilling Co., Big Spring, **$69,000.** Est. $80,000. CD 11/17—ENR 11/19.

†Washington—CONSTRUCTION—U. S. Eng., 800 3 Ave., Seattle, concrete construction, King Co., to A. W. Johnson & Goetz & Brennan, 208 E. Pacific St., Seattle, under **$50,000.** CD 9/28—ENR 10/1, under Public Bldgs.

†Washington—FACILITIES—U. S. Eng., 800 3 Ave., Seattle, addnl. facilities, Snohomish Co., to Gaasland Constr. Co., 1163 Ellis St., Bellingham, under **$50,000.**

★**†Washington** — IMPROVEMENTS — U. S. Eng., Pittock Blk., Portland, Ore., imprvs., Walla Walla Co., to Leonard & Slate, Multnomah, Ore., **$500,000-$1,000,000.**

†Washington—WATCH REPORT and FIRE ALARM SYSTEM—U. S. Eng., 800 3 Ave., Seattle, installing watch report and fire alarm sys., King Co., to Seattle American District Telegraph Co., 316 Douglas Bldg., Seattle, under **$50,000.**

★**Wash., Seattle**—PIER SUBSTRUCTURE—Port of Seattle, Bell St. Terminal, substructure for Connecticut St. pier, to General Constr. Co., 3840 Iowa St., **$1,794,150.** Bids 10/29. CD 10/30—ENR 11/5 under LB.

★**†Outside United States**—FUEL PIPELINE—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash., D. C., fuel pipeline installation, NOY 5753, to Williams Bros. Corp., 324 Natl. Bank of Tulsa Bldg., Tulsa, Okla., **$4,250,000.**

B. C., Boundary Bay—IMPROVEMENTS—Dpt. National Defense for Air, Ottawa, Ont., imprvs., No. 18 S.F.T. School, to Bennett & White Constr. Co., Ltd., 510 W. Hastings St., Vancouver, **$280,000.**

★**Labrador**—IMPROVEMENTS—Dpt. Transport, Ottawa, Ont., imprvs., clearing, grubbing, grading, draining, etc., to McNamara Constr. Co., Industrial St., Toronto, Ont., about **$2,500,000.**

N. S., North Sydney—IMPROVEMENTS—Dpt. Natl. Defense for Air, Ottawa, Ont., imprvs., to Chappells' Ltd., 62-80 Brookland St., Sydney. **$190,000.**

Ont., Carp—IMPROVEMENTS—Dpt. Natl. Defense for Air, Ottawa, imprvs., temporary bldgs., to M. Sullivan & Son, Ltd., Arnprior, **$86,000.**

Ont., London (Crumlin)—IMPROVEMENTS—Dpt. National Defense for Air, Ottawa, imprvs., S. F. T. School and Air Observers School, to Gordon H. Fuller Constr. Co., Ltd., 1580 Mercer Ave., Windsor, about **$40,000.**

Ont., Malton — IMPROVEMENTS — Trans-Canada Air Lines, 355 McGill St., Montreal, Que., imprvs., to H. A. Wickett & Co., Ltd., 156 Front St., Toronto, about **$70,000.** CD 11/4—ENR 11/12.

Ont., Welland — TUNNEL, etc. — Electro Metallurgical Co. of Canada, Ltd., Welland, altering tunnel, laying new rails, addn. 2 leading pits, etc., to Cameron & Phin, Water St., about **$48,100.**

Sask., Regina — IMPROVEMENTS — Dpt. Natl. Defense for Air, Ottawa, Ont., addnl. development, clearing, grading, drainage, etc., S.F.T. School, to Dorosz Bros., 3411 McCallum Ave., **$35,000.**

PUBLIC BUILDINGS

PROPOSED WORK

★**†Ark., Pine Bluff**—Pub. Housing Auth., NHA, Electric Bldg., 7 and Taylor Sts., Fort Worth, Tex., 416 unit dormitory apartments, Ark-3013; 200 family unit housing, Ark 3014.

†California—Henry J. Kaiser Co., Latham Square Bldg., Oakland, 2 storage mezzanine floors in bldg. Federally financed.

†California—Henry J. Kaiser Co., Latham Square Bldg., Oakland, shop addn., Contra Costa Co. Federally financed.

†California—Moore Dry Dock Co., foot of Adeline St., Oakland, bldg. addn. Alameda Co. Federally financed.

†California—Riverbank City Housing Auth., G. C. Staley, Box 358, Riverbank, dwellings, for NHA. Federal funds allotted.

†California—Upland City Housing Auth., City Hall, Upland, plans by A. Monaca, 3021 Waverly Dr., Los Angeles, and J. Dewey Harnish, Assoc., 212 E. B St., Ontario, permanent housing, Cal. 9-1 for NHA, $415,000. CD 11/27—ENR 12/4.

†California—U. S. Dpt., Agriculture, Emergency Guayule Rubber Project, Box 1609, Salinas, plans by C. E. Butner, 7 Windham St., Salinas, housing, Riverside or San Diego Counties.

†California—U. S. Dpt. Agriculture Emergency Rubber Project, Box 1609, Salinas, plans by C. E. Butner, 7 Windham St., Salinas, housing, Stanislaus Co.

†California—U. S. Dpt. Agriculture Emergency Guayule Rubber Project, Box 1609, Salinas, plans by C. E. Butner, 7 Windham St., Salinas, labor camp, etc., Stanislaus Co.

†Calif., Hamilton Field — Pub. Housing Auth., NHA, 785 Market St., San Francisco, 125 family unit housing, Cal-4052.

★**†Calif., Pittsburg-Antioch**—Pub. Housing Auth., 785 Market St., Market St., San Francisco, 250 family unit housing, Cal-4471; 128 temporary dormitory housing, Cal-4473; 275 dormitory apartments, Cal-4472. CD 11/9—ENR 11/12.

★**†Colorado**—Pub. Housing Auth., NHA, Dierks Bldg., Kansas City., Mo., plans by T. Buell & Co., 730-14 St., Denver, Colo., demountable residences. $600,000.

★**†Connecticut**—Public Housing Auth., NHA, 24 School St., Boston, Mass., plans by F. H. Beckwith, 115 Wall St., Bridgeport, demountable, frame housing, Conn. 6057. $1,200,000.

†Connecticut—Pub. Housing Auth., NHA, 24 School St., Boston, Mass., plans by C. J. Malmfeldt, 36 Pearl St., Hartford, dormitory housing, Conn.-6131: Over $150,000. CD 11/5—ENR 11/12.

★**†Connecticut**—Public Housing Auth., NHA, 24 School St., Boston, Mass., plans by Maxwell Moore & Charles Salisbury, 967 Farmington Ave., West Hartford, housing, Conn 6134. $1,000,000. CD 11/5—ENR 11/12.

★**†Idaho**—Pub. Housing Auth., NHA, Skinner Bldg., Seattle, Wash., dwelling and dormitory units, with apartments. Over $700,000.

★**†Illinois**—Defense Plant Corp., 811 Vermont Ave. N.W., Wash., D. C., addnl. plant facilities. Over $1,250,000. Industrial Company will operate.

★**†Ill., Decatur**—Decatur Housing Auth., 392 unit temporary housing, Ill-11171; 256 unit temporary dormitory apartments, Ill-11172; 408 unit temporary housing, Ill-11175; 300 unit temporary housing, Ill-11176. CD 11/16—ENR 11/19.

†Kan., Salina—Pub. Housing Auth., NHA, Dierks Bldg., 10 St. and Grand Ave., Kansas City, Mo., 100 dormitory apartments, Kan-14051.

★**†Louisiana**—Higgins Aircraft Corp., M. Gotteman, treas., 521 City, Park Ave., New Orleans, plant. Federally financed. Albert Kahn Associate Archts. and Engrs., Inc., 345 New Center Bldg., Detroit, Mich., archts. CD 11/11—ENR 11/19.

★**†Maryland**—Pub. Housing Auth., NHA, Temporary Bldg. 2, 19 and D Sts. N.W., Wash., D. C., plans by A. P. Clark, Jr., 816 14 St. N.W., Wash., D. C., temporary housing. Egli & Gompf, Inc., 425 St. Paul Pl., Baltimore, engrs.

★**Md., Towson**—Comrs. Baltimore Co., plans by Jas R. Edmunds, Jr., 409 Calvert Bldg., Baltimore, 2 story, brick hospital also nurses home, Taylor Ave., $650,000. CD 2/3—ENR 2/5.

★**†Md., Towson**—Federal Works Agency, 606 State Planters Bank Bldg., Richmond, Va., hospital and nurses home. $651,000 allot.

†Mich., Roseville—Federal Works Agency, 18 and F Sts. N.W., Wash., D. C., rejected bids Oct. 29, school, Docket Mich. 20-164. CD 10/26.

†Missouri—Pub. Housing Auth., NHA, 1700 Dierks Bldg., Kansas City, Mo., revised plans nearing completion by H. K. Graf, 2825 Olive St., St. Louis, construction, completion site development work for housing, Project Mo. 23051, and construction frame community bldg. Under $500,000. CD 8/3—ENR 8/6.

†Mo., St. Louis—Pub. Bldgs. Admin., F. Rothwell, custodian, 507 U. S. Court House & Custom House, St. Louis, resetting coping stone, etc. at U. S. Court House and Custom House. Project cancelled. CD 10/21—ENR 10/29 under BA.

★**†New Jersey**—Defense Plant Corp., 811 Vermont Ave. N.W., Wash., D. C., addnl. plant facilities. Over $8,500,000. Industrial Company will operate.

†N. C., New Bern-Morehead City—Pub. Housing Auth., NHA, Georgia Savings Bank Bldg., Peachtree and Broad Sts., Atlanta, Ga., 100 family unit housing NC-31062.

★**†O., Akron**—Pub. Housing Auth., NHA, 9 St. and Prospect Ave., Cleveland, 300 family unit housing, Ohio-33014.

†O., Windham—Windham Twp. Bd. Educ., E. S. Ehresman, clk., plans by Garfield, Harris, Robinson & Schafer, Natl. City Bldg., Cleveland, school. $200,000. **FWA.** CD 11/19.

†Ore., Fort Stevens—Pub. Housing Auth., NHA, Skinner Bldg., 5 Ave. and Union St., Seattle, Wash., 20 family unit housing, Ore-35081.

†Ore., Medford—Pub. Housing Auth., NHA, Skinner Bldg., 5 Ave. and Union St., Seattle, Wash., 125 family unit housing, Ore-35211.

★**†Pennsylvania**—Defense Plant Corp., 811 Vermont Ave., N.W., Wash., D. C., plans by Albert Kahn Associated Archts. & Engrs., Inc., 345 New Center Bldg., Detroit, Mich., brick, steel plant addn. $500,000. Industrial Company will operate.

†Tennessee—U. S. Eng., 306 U. S. Courthouse, Nashville, plant, Roane Co.

★**†Tenn., Nashville**—U. S. Eng., 306 U. S. Courthouse, Nashville, bldg., Davidson Co. $5,000,000-$6,000,000. Associated Architects, Asheville, N. C., archts.

★**†Texas**—Pub. Housing Auth., NHA, Electric Bldg., Fort Worth, housing.

†Tex., Lubbock—Federal Security Agency, Maverick Bldg., San Antonio, recreation centre, facilities, Tex. 41-578. $32,200. Applied for **FWA** funds.

★**†Washington**—Port Orchard Housing Auth., Port Orchard, plans by P. Thiry & J. P. Jones, Hoge Bldg., Seattle, housing, Wash-45147, for NHA. $8,000,000. M. O. Sylliaasen & L. Bouillon, Dexter Horton Bldg., Seattle, engrs. CD 11/13—ENR 11/19.

BIDS ASKED

Bids Asked December 1

★**†Maryland**—Alley Dwelling Auth., 1747 L St. N.W., Wash., D. C., demountable housing, MD-18211, for NHA. Extended date. Skidmore, Owings & Merrill, 5 E. 57 St., New York, N. Y., archts. CD 11/13—ENR 11/5.

†Mo., Maryland Heights—Maryland Heights School Dist. of St. Louis Co., G. C. Goza, supt., Fee Fee Rd. near Dorsett Rd., St. Louis County, construction, completion high school addn., moving frame school bldg. and digging well, Docket Mo. 23-153. $28,000. **FWA.** Bonsack & Pearce, Inc., Merchants Laclede Bldg., St. Louis, archts. CD 11/9—ENR 11/12.

Bids Asked December 2

†Mo., Pattonville—School District of Pattonville, c/o Superintendent, St. Charles Rock Rd., (U.S. 40), west of Adie Rd., 1 story, bsmnt., 4 class-room school addn. Docket Mo. 23-152. $21,000. **FWA.** Bonsack & Pearce, Inc., Merchants Laclede Bldg., St. Louis, archts. CD 11/16—ENR 11/19.

Bids Asked December 7

†California—Bureau Reclamation, Denver, Colo., four 30 in. motor-operated gate valves for installation in station-service penstocks at Shasta Power plant, Kennett Div., Central Valley Proj., Spec. 1678-D. W. R. Young, acting ch. engr.

Bids Asked December 8

★**†Indiana**—Evansville Housing Auth., City Hall, Evansville, dwelling units, Ind-12131, Ind-12132, Ind-12133 and Ind-12136; dormitory type apartments, Ind-12137, Ind-12138, Ind-12139 and Ind-12151, for NHA. E. C. Berendes, 121 N.W. 4 St., Evansville, Allied Architects & Engineers, 922 Architects & Builders Bldg., Indianapolis, and A. M. Strauss, 415 Cal-Wayne Bldg., Fort Wayne, assoc. archts. CD 11/19—ENR 11/12.

Bids Asked December 21

†Virginia—Pub. Housing Auth., NHA, Temporary Bldg. 2, 19 and D Sts. N.W., Wash., D. C., housing, Va-44-322.

Bids Asked

†Alabama—Pub. Housing Auth., NHA, Georgia Savings Bank Bldg., Peachtree and Broad Sts., Atlanta, Ga., housing, Ala. 1142. H. A. Griffith, Sheffield, and P. Roberts, Annex 1st Natl. Bank Bldg., Mobile, archts. Plans deposit $50. CD 11/13—ENR 11/19.

†California—Henry J. Kaiser Co., Latham Square Bldg., Oakland (selected list bidders), bldg. Federally financed.

†Maine—U. S. Eng., Park Square Bldg., Boston, Mass. (selected list bidders), winterizing construction bldgs., 175-43-NEG. 147, Aroostook Co.

†Maine—U. S. Eng., Park Square Bldg., Boston, Mass. (selected list bidders), winterizing construction work, bldgs., No. 175-43-NEG. 145, Penobscot Co.

★**†Texas**—Pub. Housing Auth., NHA, 1309 Electric Bldg., Fort Worth, facilities for trailer camp, $350,000, plans deposit $50; housing, incl. dormitories, admin. bldg and schools, etc., all utilities, $3,000,000, plans deposit $50. H. F. Kuehne, B. F. Giesecke and R. M. Brooks, Littlefield Bldg., Austin, archts. CD 11/10—ENR 11/12.

†Tex., Hooks—Bd. Educ., Pub. school, facilities, Tex. 41-524. $288,700. **FWA.** Plans deposit $50. H. W. Harner, 411 State Line, Texarkana, engr. CD 10/19—ENR 10/29.

LOW BIDDERS

★**†Louisiana**—U. S. Eng., foot of Prytania St., New Orleans, new bldgs., addns., from L. F. Favret, 937 Gravier St., New Orleans, under **$1,000,000.**

★**†Mississippi**—U. S. Eng., U. S. Post Office & Courthouse, Vicksburg, Nov. 11, bldgs., utilities, Hinds Co., from A. Farnell Blair, P. O. Box 451, Decatur, Ga. Est. about **$5,000,000.** Burns & McDonnell, 107 Linwood Blvd., Kansas City, Mo., archts. CD 11/4—ENR 11/11.

†Nevada—U. S. Eng., 4792 Sepulveda Ave., San Bernardino, Calif., Nov. 9, bldg., Solic No. 64C, Clark Co., from General Constr. Co., 5205 Hollywood Blvd., Los Angeles, Calif., under **$50,000.** CD 10/29 under Unclassified.

★**†N. C., Wilmington**—James Walker Memorial Hospital Bd., J. E. Roe, pres., Nov. 11, general contract Jas. Walker Hospital addn., **FWA** 31-127, from Fowler-Jones Constr. Co., Winston Salem, **$261,500;** plumbing, heating, from J. R. Bagwell, Durham, est. $500,000. CD 11/4—ENR 10/29.

CONTRACTS AWARDED

†Alabama—U. S. Eng., U. S. Courthouse & Customhouse, Mobile, bldg., Mobile Co., to H. L. Edgell, 451 Dexter St., Mobile.

†Arkansas—U. S. Eng., P. O. Box 97, Memphis, Tenn., interior plumbing bldg., to Mellville E. Clifford Plumbing Co., Paragould, under **$50,000.**

†California—U. S. Eng., 74 New Montgomery St., San Francisco, bldg., Solano Co., to P. C. Gibson, 372 Velarde St., Mountain View. Awarded 11/16.

†California—U. S. Eng., 74 New Montgomery St., San Francisco, bldg., Marin Co., to J. C. Monk & Son, 45 Tait Ave., Los Gatos, M. W. Reese, 1262 Minnesota Ave., San Jose, and B. H. Painter, 24 N. 2 St., Los Gatos. Awarded 11/18.

†California—U. S. Eng., 74 New Montgomery St., San Francisco, bldg., San Luis Obispo Co., to Howson Bros., Las Animas Ave., Gilroy. Awarded 11/18.

†Connecticut—U. S. Eng., 819 Industrial Trust Bldg., Providence, R. I., housing, Hartford Co., to Home Guild, Inc., 47 E. 34 St., New York, N. Y. **$100,000-$500,000.**

†D. C., Wash.—Alley Dwelling Auth., 1737 L St. N.W., demountable housing, DC-49059, for NHA, to Irons & Reynolds, Inc., Barr Bldg. Bids 11/14. CD 11/13.

†Florida—U. S. Eng., U. S. Courthouse & Post Office, Jacksonville, bldgs., Dade Co., to Watt & Sinclair, Inc., 207 Royal Palm Way, Palm Beach. Est. under **$500,000.** Awarded 11/2.

†Florida—U. S. Eng., U. S. Courthouse & Post Office, Jacksonville, bldgs., Inv. JMA 43-6, Duval Co., to R. McDonald Smith, 3867 Arden St., Jacksonville, under **$50,000.** Awarded 11/2.

†Florida—U. S. Eng., U. S. Courthouse & Post Office, Jacksonville, bldg., imprvs., Jackson Co., to R. A. Bowen Constr. Co., Macon, Ga., **$100,000-$500,000.**

†Georgia—U. S. Eng., 494 Spring St., N.W., Atlanta, addnl. bldgs., Bibb Co., to Tri-State Const. Co., 114 Ellis St. N.E., Atlanta.

†Georgia—U. S. Eng., Marietta, pump. sta. for bldg., Cobb Co., to A. Farnell Blair, 215 Church St., Decatur. Robert & Co., Bona Allen Bldg., Atlanta, engrs.

†Georgia—U. S. Eng., Post Office Bldg., Savannah, bldgs., Dougherty Co., to W. H. Spooner & Son, Tifton.

★**†Georgia**—U. S. Eng., Post Office Bldg., Savannah, bldgs., Liberty Co., to Southeastern Constr. Co., 218 W. 2 St., & Goode Constr. Corp., Builders Bldg., both Charlotte, N. C. Bids 11/14. CD 11/10.

†Louisiana—U. S. Eng., foot of Prytania St., New Orleans, bldgs., etc., Inv. 43-176, to R. P. Farnsworth, 1515 S. Salcedo St., New Orleans. Bids 11/14, awarded 11/17.

†Maryland—Defense Plant Corp., 811 Vermont Ave. N.W., Wash., D. C., plant addns., alterations, to Consolidated Eng. Co., 20 E. Franklin St., Baltimore. Est. over **$100,000.** Maryland Sanitary Corp., 4500 E. Lombard St., Baltimore, will operate. CD 11/16—ENR 11/19.

PUBLIC BLDGS. (Contracts Awarded, Cont'd.)

†Maryland—Defense Plant Corp., 811 Vermont Ave. N.W., Wash., D. C., plant, to United Engineers & Constructors, 1401 Arch St., Phila., Pa., **$45,000.** Industrial Company will operate.

†Maryland—U. S. Eng., Edgewood, miscellaneous bldgs., Harford Co., Item 2, to A. A. LaFountain, Inc., 161 Beech St., Hackensack, N. J., **$100,000-$500,000.** Bids 11/9.

†Massachusetts—U. S. Eng., 819 Industrial Trust Bldg., Providence, R. I., housing units, utilities, Bristol Co., to Cuzzi Bros. & Singer, Inc., 10 S. 2 Ave., Mount Vernon, N. Y., **$100,000-$500,000.**

†Massachusetts—U. S. Eng., 31 St. James Ave., Boston, warehouses, Suffolk Co., to Frankini Constr. Co., 30 Mystic Ave., Medford, under **$50,000.**

★ **†Michigan**—U. S. Eng., 700 Union Guardian Bldg., Detroit, crash truck garage and admin. bldg., Macomb Co., to DeMare Bros., 6341 Lyndon St., Detroit, less than **$1,000,000.**

★ **†Michigan**—U. S. Eng., 700 Union Guardian Bldg., Detroit, theatre of operation bldgs., mess halls, roads, walks, Saginaw Co., to Spence Brothers, 203 Brewer Arcade, Saginaw, less than **$5,000,000.**

†Mississippi—U. S. Eng., U. S. Courthouse & Customhouse, Mobile, temporary frame bldgs., Harrison Co., to Henry A. Ivey, Decatur, Ga., **$100,000-$500,000.**

†Mississippi—U. S. Eng., U. S. Courthouse & Customhouse, Mobile, Ala., tent conversions, Harrison Co., to Perry Flint Co., Hattiesburg **$100,000-$500,000.** Awarded 11/13.

†Nebraska—U. S. Eng., 1709 Jackson St., Omaha, motor repair shop, Lancaster Co., to C. C. Larsen & Sons, Council Bluffs, Ia., under **$50,000.**

†New Mexico—U. S. Eng., Albuquerque, bldgs., facilities, Eddy Co., to E. S. McKittrick Co. Inc., Carlsbad. **$100,000-$500,000.** CD 10/19—ENR 10/22.

†New Mexico—U. S. Eng., Albuquerque, frame type housing, facilities, Lea Co., to H. W. Balay, 607 S. Solano St., Albuquerque. **$100,000-$500,000.** Bids about 11/7. CD 10/26—ENR 10/29.

†New Mexico—U. S. Eng., Albuquerque, bldgs., facilities, Luna Co., to J. E. Morgan & Sons, 210 N. Campbell St., El Paso. **$100,000-$500,000.** Bids about 10/20. CD 10/9.

★ **†New York**—U. S. Eng., Romulus, bldgs., utilities, Seneca Co., to W. E. Bouley & Co., Auburn. **$500,000-$1,000,000.**

†North Carolina—U. S. Eng., 308 Customhouse, Wilmington, temporary bldgs., Durham Co., to John M. Thompson & Co., Raleigh.

†Ohio—U. S. Eng., Wright Field, Dayton, bldg., Montgomery Co., to Fisher-Devore Constr. Co., 3629 Idlewild St., Cincinnati, under **$50,000.**

†Oregon—U. S. Eng., Pittock Blk., Portland, bldgs., appurtenant work, Inv. 698-339, Umatilla Co., to A. Ritchie & Co., Baker, **$175,000-$200,000.** BA 11/9.

★ **†Pennsylvania**—Allegheny County Housing Auth., 201 County Office Bldg., Pittsburgh, housing, Project Pa. 36-104, Allegheny Co., incl. sewer line, sewage disposal plant, primary treatment c.i. watermains, water tower tank and booster sta., 1 community bldg., to Caristo Constr. Co., 26 Court St., Brooklyn, N. Y., **$1,867,490.** Bids 9/29. CD 10/5—ENR 10/8, under LB.

★ **†Pennsylvania** — Beaver County Housing Auth., Community Bldg., Tamaqua Village, P. O. Box 181, Beaver, brick masonry construction, residential bldgs., administration and community bldgs., Proj. 36-301, for NHA, to Henry Shaffer Lumber Co., No. Grant St., Kittanning. **$1,828,800.** CD 11/10—ENR 11/12 under LB.

†Pennsylvania—Pub. Housing Auth., NHA, 270 Bway., New York, N. Y., housing, Pa. 36085, to Rathgeb-Walsh Inc., 184 N. Main St., Port Chester, N. Y., **$324,000.** Bids 10/30. CD 10/19—ENR 10/22.

★ **†Pennsylvania**—U. S. Eng., 6 and Walnut Sts., Phila., temporary frame bldgs., Berks Co., to Ritter Bros., 1511 N. Cameron St., Harrisburg, **$500,000-$1,000,000.**

★ **†Pennsylvania**—U. S. Eng., 925 New Federal Bldg., Pittsburgh, general contract bldgs., Mercer Co., to Landau Bros. Bldg. Co., 125 1 Ave., Pittsburgh***bldgs., to Associated Builders, Greenville***interior electrical work for bldgs., to R. R. Morganstern, 213 Blvd. of Allies, Pittsburgh. Total est. over **$5,000,000.** Gannett, Eastman & Fleming, Inc., 600 N. 2 St., Harrisburg, archts. and engrs.

†Rhode Island—U. S. Eng., 819 Industrial Trust Bldg., Providence, frame housing, No. 43-104, Newport Co., to Coleman & Collins Constr. Co., Inc., 318 Turks Head Bldg., Providence. Est. **$100,000-$500,000.** Bids 11/16. CD 11/13.

†South Carolina—U. S. Eng., North Charleston, temporary frame bldgs., Charleston Co., to Charleston Constructors, Inc., Adgers Wharf, Charleston.

†South Carolina—U. S. Eng., Charlotte, N. C., bldg., Union Co., to W. H. Hand & Son, Belmont, N. C.

†South Carolina—U. S. Eng., 35 Customhouse, Charleston, bldgs. addns., alterations, Charleston Co., to Dawson Eng. Co., Inc., 10 Gillon St., Charleston.

†South Dakota—U. S. Eng., 1709 Jackson St., Omaha, Neb., bldgs., Minnehaha Co., to Dakota Builders, Inc., Sioux Falls.

★ **†Tennessee**—U. S. Eng., 306 U. S. Courthouse, Nashville, civilian housing, water and electrical distr. sys., Rutherford Co., to Rule & Murphy, Memorial Apartment, Nashville, under **$1,000,000.** CD 11/17—ENR 11/19.

★ **†Texas**—Pub. Housing Auth., NHA., 1309 Electric Bldg., Fort Worth, housing, to Houston Ready-Cut House Co., 3601 Polk St., Houston, **$785,000;** housing to Beaumont Constr. Co., Beaumont, **$460,000.**

†Texas—Industrial Company, addnl. housing units, to H. B. Neild, Beaumont, **$200,000.** Defense Plant Corp. will finance.

†Texas—U. S. Eng., 25 St. and Avenue F, Galveston, bldgs., water, sewer, gas lines, facilities, Cameron Co., to Sweetland Constr. Co., Edinburg, **$50,000-$100,000.**

†Texas—U. S. Eng., 25 St. and Avenue F, Galveston, frame bldgs., underground utilities, Galveston Co., to A. L. Hays, Port Arthur. **$100,000-$500,000.**

†Texas—U. S. Eng., Fort Sam Houston, bldgs., water, sewer, gas lines, facilities, Hidalgo Co., to Noser Constr. Co., McAllen, **$100,000-$500,000.**

†Texas—U. S. Eng., Fort Sam Houston, increased construction bldgs., underground utilities, Spec. 42-485, Kinney Co., to Investment Service Corp., Great Natl. Life Bldg., Dallas, **$100,000-$500,000.**

★ **†Utah**—Defense Plant Corp., 811 Vermont Ave. N.W., Wash., D. C., plant, to M. W. Kellogg Co., 225 Bway., New York, N. Y. Est. **$12,000,000.** Industrial company will operate.

†Utah—U. S. Eng., 32 Exchange Pl., Salt Lake City, frame work, incl. framing timber trussed for bldg., to Timber Structures, Inc., 3400 N.W. Yeon Ave., Portland, Ore., **$50,000-$100,000;** electrical installation, to Russelle & Evans, Ely, Nev., under **$50,000,** both Tooele Co. Bids 11/10.

†Virginia—U. S. Eng., Richmond, Va., cold storage bldg., appurtenant work, Henrico Co., to Conquest, Moncure & Dunn, Inc., 208 E. Cary St., Richmond, **$50,000-$100,000.**

†Virginia—U. S. Eng., 415 P. O. and Court House Bldg., Norfolk, dispensary and housing, Norfolk Co., to L. B. Gallmore, Greensboro, N. C., **$100,000-$500,000.**

†Virginia—U. S. Eng., Fort Monroe, laundry frame bldgs., Harris Co., to Roy White Electric ern Constr. Co. and Goode Constr. Co., Sandston, Richmond. **$100,000-$500,000.**

★ **Ont., Windsor**—Wartime Housing Ltd., 55 York St., Toronto, 250 addnl. houses, to Hill-Clark-Francis, Ltd., Whitewood Ave., New Liskeard, about **$550,000.**

★ **Que., St. Hyacinthe**—Dpt. Natl. Defense for Sea, Ottawa, Ont., Naval Signal School, Naval Training Centre, to Stewart Constr. Co., Ltd., 7 Dufferin Ave., Sherbrooke, about **$650,000.** Bids 11/5. CD 10/27—ENR 10/29.

COMMERCIAL BUILDINGS

PROPOSED WORK

★ **Ia., Indianola**—Simpson College plans endowment campaign to raise funds addnl. bldgs. Over $500,000.

Mass., Greenfield — S. Failla, 48 Heywood St., frame housing units. $150,000.

N. J., New Brunswick—Hamilton Estates, Inc., c/o I. Naftali, archt., 900 Bergen Ave., Jersey City, 7 unit, 2 story, brick garden apartment.

Pennsylvania—L. F. A. Collins, 506 Edgmore Ave., Chester, 165 housing units, Button Mills Rd. between Knowlton and Concord Rd., Green Ridge, Aston Twp., Delaware Co.

Pennsylvania — Jos. A. Hayden, 838 E. Haine St., 27 housing units, Glendalough Rd., Springfield Twp., Montgomery Co.

CONTRACTS AWARDED

Calif., Tracy — Balco Inc., 5045 Cochrane Ave., Oakland, fifty-one 1 story, wood frame residences, Subdivision Parker Villas 3, to T. M. Almquist, 5045 Cochrane Ave., Oakland, **$244,800.**

★ **Md., Landover**—Meadowbrook, Inc., 103 E. West Highway, Chevy Chase, residential development, Landover Villa, separate contracts *** heating, to Columbia Specialty Co., Chevy Chase *** electrical contract, to Ford Electric Co., Arlington, Va. Total est. **$2,100,000.**

Mo., St. Louis — Overland Building Corp., Overland, eight 2 story, 30x46 ft. brick flats, stone fdns., 4918-48 Kemper Ave., to Jas. C. Tegethoff, 5636 Itaska Ave. Est. **$150,000.** A. F. Stauder, 6921A Gravois Ave., archt.

N. J., Bound Brook—Bound Brook Gardens, Inc., Bound Brook, 3 frame, brick veneer apartment bldgs., separate contracts, **$155,000.** McMurray & Schmidlin, 968 Stuyvesant Ave., Union, archts.

N. J., Rutherford—Ayel Gardens, Inc., Union Ave., group 2½ story, bsmnt., brick, frame garden type apartments, separate contracts. **$155,000.** L. F. Flint, 333 Hillcrest Ave., Woodridge, archt.

★ **O., Columbus**—Capital Investment Co., 22 W. Gay St., approx. 150 dwellings, Colonial Hills Subdivision, to Alvin L[illegible] 830 Walthan Rd., approx. **$800,000.** Jennings-Lawrence Co., 12 N. 3 St., engrs. CD 11/[illegible]—ENR 11/19 under CA.

O., Lima—Lima Homes, Inc., Cook Tower, 62 residences, west of St. Johns Ave., north of 4 St., to Mumaugh & McNulty, 1106 Cook Tower. Est. **$248,000.**

★ **Pennsylvania**—Superior Homes Co., Geo S. Goodyear, in charge, 317 Castle Shannon Blvd., Mt. Lebanon, six hundred 2 story, bsmnt., brick veneer residences, Scott Twp., separate contracts. **$3,600,000.**

Pa., Phila.—Wm. M. Greenhouse, 5601 N. Broad St., 36 duplex bldgs., Park Lane between Walnut Lane and Wissahickon Ave. Owner builds. Over **$300,000.** M. A. Bernhardt, 215 S. Broad St., archt.

Tex., Dallas—Dallas Defense Homes, Inc., 2900 W. Davis St., frame dwellings, duplexes, incl. 20x20 ft. garages, utilities, to Lewis & McDaniel, 2900 W. Davis St., **$150,000.**

INDUSTRIAL BUILDINGS

PROPOSED WORK

Massachusetts — PLANT — Bethlehem Steel Co., E. Howard St., Quincy, soon lets contract plant. $40,000. CD 11/19—ENR 11/26.

BIDS ASKED

Conn., Waterbury—PLANT—Benrus Watch Co., Inc., 30 Cherry Ave., 2 story, 60x65 ft. brick plant addn. Leo F. Caproni, 1221 Chapel St., New Haven, engr.

LOW BIDDERS

Miss., Pascagoula—REPAIR SHOP, etc.—Ingalls Iron Works, Pascagoula, maintenance repair shop, repair pit, from Brice Bldg. Co., Inc., 215 S. 18 St., Birmingham, Ala.

CONTRACTS AWARDED

La., Monroe—WAREHOUSES, etc.—G. C. Ansley, Monroe, 2 warehouses, other bldgs. to R. M. Harmon, Monroe, **$150,000.** Awarded 11/10.

Mass., West Springfield—PLANT—Gilbert & Barker Mfg. Co., Cold Spring Ave., shop unit, altering factory, to Ernest F. Carlson, Inc., 1694 Main St., Springfield. Est. **$40,000.**

Minn., Belle Plaine—PLANT—Minnesota Valley Milk Processing Co-operative Assn., Belle Plaine, general contract milk dehydrating plant, to Opitz & Boehl, St. Cloud. **$40,000.** M. O. Buetow, 1931 University Ave., St. Paul, archt.

Ohio—FACTORY—Industrial Company, general contract factory alterations, addns., to Geo. Lathrop & Son, 1510 Montcalm Ave., Toledo *** plumbing, to Johnson Plumbing & Heating Co., 1510 Mountcalm Ave., Toledo *** electrical contract, to Harlan Electric Co., 1500 Laskey Rd., Toledo. Total est. **$90,000.** H. E. Beyster Corp., General Motors Bldg., Detroit, Mich., archts.

O., Cleveland—FACTORY—Hydraulic Equipment Co., H. Kirkham, pres., 1100 E. 222 St., Euclid, 1 story, 75x80 ft., brick factory addn., to Chas. E. Lewis & Son, 1200 Green Rd. Est. **$40,000.**

O., Cleveland—PLANT—Wellman Bronze & Aluminum Co., F. S. Wellman, pres., 6017 Superior Ave., 5 brick factory addns., to J. L. Hunting Co., Ninth & Chester Bldg. Est. **$100,000.** Awarded 11/17. CD 6/24—ENR 7/9.

Pa., Pittsburgh—PLANT—Jones & Laughlin Steel Corp., F. W. Ochsenshirt, Jr., genl. purch. agt., 3 and Ross Sts., brick, rein.-con. sinter plant, car dumper and storage bin bldgs., etc., to Mellon Stuart Co., 210 E. Parkway, N. S. Pittsburgh.

Texas—PLANT—Industrial Company, plant, boiler houses, etc., to Wm. A. Brunet, Shell Bldg., Houston, **$86,500.**

Ont., Hamilton—PLANT—Dominion Foundries & Steel Ltd., Depew St., 110x240 ft. addn. chipping and annealing aisle and annex, to Frid Constr. Co., Ltd., 126 King St. E. Est. **$1,100,000,** incl. equipment. Prack & Prack, Pigott Bldg., archts. C. D. Howe Co., Ltd., Pigott Bldg., engrs. CD 3/16—ENR 4/2.

Ont., Leaside (Toronto)—PLANT—Sutton-Horsley Co., Ltd., 263 Adelaide St. W., Toronto, altering plant, 30 Commercial St., to Dickie Constr. Co., Ltd., 17 Yorkville Ave., Toronto, about **$105,400** incl. equip. Molesworth & Secord, 18 Toronto St., Toronto, consult. archt. CD 10/19—ENR 10/29.

Que., Fassett—PLANT—Standard Chemical Co., Ltd., 5070 St. Ambroise St., Montreal, plant addn., to H. L. Gomoll, 243 Jane St., North Bay, Ont.

Que., Rouyn—MINE—Dome Exploration Co., Ltd., Excelsior Life Bldg., Toronto, Ont., mine bldgs. and mill, to Hill-Clark-Francis, Ltd., New Liskeard, Ont. Est. **$50,000.** CD 11/2—ENR 11/12.